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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES AND AIRPORTS

***SUBPART 4- RESERVED
SUBPART 5 - RESERVED
SUBPART 6 - RESERVED
SUBPART 7 - RESERVED***

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PART III - AERODROMES, AIRPORTS AND HELIPORTS

(300)

SUBPART 0 - INTERPRETATION

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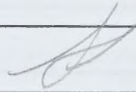
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2011-2	2011/12/31	2012/03/06	

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300 - INTERPRETATION

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PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

SUBPART 0 - INTERPRETATION

300.01 In this Part,

“aerodromes standards and recommended practices publications” - means the following documents, namely,

- (a) *Procedures for the Certification of Aerodromes as Airports*,
- (b) *Aerodrome Standards and Recommended Practices*, and
- (c) *Heliport and Helideck Standards and Recommended Practices*; (*publications sur les normes et pratiques recommandées pour les aérodomes*)

“aeronautical information publications” - means the following documents, namely,

- (a) *Canada Air Pilot*,
- (b) *Canada Flight Supplement*,
- (c) *Water Aerodrome Supplement*, and
- (d) *A.I.P. Canada*; (*publications d'information aéronautique*)

“aircraft emergency” means a situation that could result in damage to an aircraft at an airport or aerodrome or injury to the persons on board the aircraft; (*aéronef en état d'urgence*)
(amended 2002/06/10)

“airport certificate” - means a certificate issued pursuant to section 302.03; (*certificat d'aéroport*)

“airport operations manual” - means the manual referred to in section 302.08 and includes any amendments to the manual that are approved pursuant to subsection 302.03(2); (*manuel d'exploitation d'aéroport*)

“airside” means an area designated by the operator of an airport or aerodrome as a movement area and its adjacent areas within the airport or aerodrome boundaries and does not include
(amended 1997/12/01)

(a) a building used for the maintenance of aircraft, or
(amended 1997/12/01)

(b) a building and its appurtenances used for the movement of passengers; (*côté piste*)
(amended 1997/12/01)

“closed marking” - means a cross-shaped marking that

(a) has the form and, subject to subsection 301.04(4), the dimensions set out in Schedule I to Subpart 1, and

(b) subject to subsection 301.04(8), is in a single contrasting colour, white on runways and yellow on taxiways, that is visible from an aircraft flying at an altitude of 300 m (1,000 feet) above the marking; (*marque de zone fermée*)

“fixed” - in respect of a light, means having a constant luminous intensity when the light is observed from a fixed point; (*fixe*)

“marker” - means an object displayed above ground level for the purpose of indicating an obstacle or obstruction or delineating a boundary; (*balise*)

“marking” - means a symbol or group of symbols displayed on the surface of a movement area for the purpose of conveying aeronautical information; (*marque*)

“movement”, in respect of an aircraft, means a take-off or landing at an airport or aerodrome; (*mouvement*)
(amended 2002/06/10)

“obstacle limitation surface” -

(Repealed 2011/12/31)

“operator” - means the person in charge of an aerodrome, and includes an employee, agent or other authorized representative of that person; (*exploitant*)

“public way” - means any road, path or sidewalk maintained for the use of members of the public; (*voie publique*)

“Water Aerodrome Supplement” means a publication concerning water aerodromes that is intended to be used to supplement enroute charts and the *Canada Air Pilot*. (*Supplément hydroaérodromes*)



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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS

SUBPART 1 - AERODROMES

301

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301 - AERODROMES

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PART III - AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

SUBPART 1 - AERODROMES

Application

301.01 This Subpart applies in respect of all aerodromes except airports, heliports and military aerodromes.

(amended 2007/06/30)

Inspection

301.02 The operator of an aerodrome shall, without charge, at the request of a Department of Transport inspector, allow the inspector access to aerodrome facilities and provide the equipment necessary to conduct an inspection of the aerodrome.

Registration

301.03 (1) Subject to subsection (2), where the operator of an aerodrome provides the Minister with information respecting the location, markings, lighting, use and operation of the aerodrome, the Minister shall register the aerodrome and publish the information in the *Canada Flight Supplement* or the *Water Aerodrome Supplement*, as applicable.

(2) The Minister may refuse to register an aerodrome where the operator of the aerodrome does not meet the requirements of sections 301.05 to 301.09 or where using the aerodrome is likely to be hazardous to aviation safety and, in such a case, shall not publish information with respect to that aerodrome.

(3) The operator of an aerodrome registered pursuant to subsection (1) shall notify the Minister immediately after any change is made to the location, marking, lighting, use or operation of the aerodrome that affects the information published by the Minister pursuant to subsection (1).

(4) An aerodrome that is listed in the *Canada Flight Supplement* or the *Water Aerodrome Supplement* on the coming into force of this Subpart is deemed to be registered pursuant to subsection (1).

Markers and Markings

301.04 (1) When an aerodrome is closed permanently, the operator of the aerodrome shall remove all of the markers and markings installed at the aerodrome.

(2) The operator of an aerodrome, other than a water aerodrome, shall install red flags or red cones along the boundary of an unserviceable movement area.

(3) Subsections (4) to (8) do not apply in respect of any manoeuvring area or part thereof that is closed for 24 hours or less.

(4) Where a runway or part of a runway is closed, the operator of the aerodrome shall place closed markings, as set out in Schedule I to this Subpart, on the runway as follows:

(a) where the runway is greater than 1 220 m (4,000 feet) in length, a closed marking shall be located at each end of the closed runway or part thereof and additional closed markings shall be located on the closed runway or part thereof at intervals not exceeding 300 m (1,000 feet);

(b) where the runway is greater than 450 m (1,500 feet) but not greater than 1 220 m (4,000 feet) in length, a closed marking of not less than one-half the dimensions set out in that Schedule shall be located at each end of the closed runway or part thereof and an additional closed marking of the same dimensions shall be located on the closed runway or part thereof at a point equidistant from the two markings; or

(c) where the runway is 450 m (1,500 feet) or less in length, a closed marking of not less than one-half the dimensions set out in that Schedule shall be located at each end of the closed runway or part thereof.

(5) Where a taxiway or part of a taxiway is closed, the operator of the aerodrome shall place on each end of the closed taxiway, or part thereof, a closed marking with the dimensions set out in Schedule I to this Subpart.

(6) Where a helicopter take-off and landing area at an aerodrome is closed, the operator of the aerodrome shall

(a) place a closed marking over the letter "H", where the letter "H" identifies the helicopter take-off and landing area, or, where no letter identifies the helicopter take-off and landing area, over the centre of the area; or

(b) comply with subsection (4), where the helicopter take-off and landing area is a runway.

(7) Where a manoeuvring area or part thereof is closed permanently, the operator of the aerodrome shall

(a) obliterate all of the markings that indicate that the manoeuvring area or part thereof is open; and

(b) subject to subsection (8), paint on the manoeuvring area or part thereof the markings required pursuant to subsections (4) to (6).

(8) Where the surface of a manoeuvring area or part thereof is snow-covered or otherwise unsuitable for painting or where the closure is not permanent, closed markings may be applied by means of a conspicuously coloured dye or may be constructed from a suitable conspicuously coloured material or product.

Warning Notices

301.05 Where low-flying or taxiing aircraft at or in the vicinity of an aerodrome are likely to be hazardous to pedestrian or vehicular traffic, the operator of the aerodrome shall immediately

- (a) post notices warning of the hazard on any public way that is adjacent to the manoeuvring area; or
- (b) where such a public way is not owned or controlled by the operator, inform the authorities responsible for placing markings on the public way that there is a hazard.

Wind Direction Indicator

301.06 (1) Except where the direction of the wind at an aerodrome can be determined by radio or other means such as smoke movement in the air or wind lines on water, the operator of the aerodrome shall install and maintain at the aerodrome a wind direction indicator that is

- (a) of a conspicuous colour or colours;
- (b) in the shape of a truncated cone;
- (c) visible from an aircraft flying at an altitude of 300 m (1,000 feet) above the wind direction indicator; and
- (d) illuminated when the aerodrome is used at night.

(2) When an aerodrome is closed permanently, the operator of the aerodrome shall immediately remove all of the wind direction indicators installed at the aerodrome.

Lighting

301.07 (1) Subject to subsection (2), where a runway is used at night, the operator of the aerodrome shall indicate each side of the runway along its length with a line of fixed white lights that is visible in all directions from an aircraft in flight at a distance of not less than two nautical miles.

(2) Where it is not practical to provide at an aerodrome the fixed white lights referred to in subsection (1) for reasons such as the lack of an available electrical power source or insufficient air traffic, the operator of the aerodrome may, if a fixed white light is displayed at each end of the runway to indicate runway alignment, use white retro-reflective markers that are capable of reflecting aircraft lights and that are visible at a distance of not less than two nautical miles from an aircraft in flight that is aligned with the centre line of the runway.

(3) The lines of lights or retro-reflective markers required by subsection (1) or (2) shall be arranged so that

- (a) the lines of lights or markers are parallel and of equal length and the transverse distance between the lines is equal to the runway width in use during the day;
- (b) the distance between adjacent lights or markers in each line is the same and is not more than 60 m (200 feet);
- (c) each line of lights or markers is not less than 420 m (1,377 feet) in length and contains no fewer than eight lights or markers; and
- (d) each light or marker in a line of lights or markers is situated opposite to a light or marker in the line of lights or markers on the other side of the runway, so that a line connecting them forms a right angle to the centre line of the runway.

(4) Fixed white lights displayed at each end of a runway pursuant to subsection (2) shall be placed so that they are not likely to cause a hazard that could endanger persons or property.

(5) Where a taxiway is used at night, the operator of the aerodrome shall indicate each side of the taxiway with a line of fixed blue lights or blue retro-reflective markers placed so that the two lines of lights or markers are parallel and the distance between adjacent lights or markers in each line is not more than 60 m (200 feet).

(6) Where a manoeuvring area or part thereof or a heliport is closed, the operator of the aerodrome shall not operate the lights or keep the retro-reflective markers thereon, except as required for maintenance of the lights and markers.

(7) Where an aerodrome is used at night, the operator of the aerodrome shall indicate an unserviceable portion of the movement area with fixed red lights, red retro-reflective markers or floodlighting.

(8) Where an aircraft parking area at an aerodrome is used at night, the operator of the aerodrome shall indicate the boundary of the area with fixed blue lights or blue retro-reflective markers, placed at intervals not exceeding 60 m (200 feet), or with floodlighting.

(9) Subject to subsection (10), where a heliport is used at night for the take-off or landing of helicopters, the operator of the heliport shall illuminate the entire take-off and landing area with floodlights or

- (a) where the take-off and landing area is rectangular, shall indicate the boundary with no fewer than eight fixed yellow lights, including one light at each corner, placed so that adjacent lights are not more than 13 m (42.5 feet) apart; or
- (b) where the take-off and landing area is circular, shall indicate the boundary with no fewer than five fixed yellow lights placed so that adjacent lights are not more than 13 m (42.5 feet) apart.

(10) Where it is not practical to provide at a heliport the fixed yellow lights referred to in subsection (9) for reasons such as lack of an available electrical power source or insufficient air traffic, the operator of the heliport may use yellow retro-reflective markers that are capable of reflecting aircraft lights and that are visible at a distance of not less than two nautical miles from an aircraft in flight that is aligned with the approach path, if

- (a) a light source is provided to show the location of the heliport; or
- (b) where there is only one path for approach and departure, two lights are used to show the approach orientation.

(11) Where the lighting required by subsections (1), (2), (5) and (7) to (10) is operated by a radio-controlled system capable of activation from an aircraft, the system shall meet the requirements set out in Schedule II to this Subpart.

(12) The operator of an aerodrome may display flare pots to provide temporary lighting for the landing or take-off of aircraft.

Prohibitions

301.08 No person shall

(a) walk, stand, drive a vehicle, park a vehicle or aircraft or cause an obstruction on the movement area of an aerodrome, except in accordance with permission given

(i) by the operator of the aerodrome, and

(ii) where applicable, by the appropriate air traffic control unit or flight service station;

(b) tow an aircraft on an active movement area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lights mounted on the towing vehicle and directed at the aircraft;

(c) park or otherwise leave an aircraft on an active manoeuvring area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lanterns suspended from the wingtips, tail and nose of the aircraft;

(d) operate any vessel, or cause any obstruction, on the surface of any part of a water area of an aerodrome that is to be kept clear of obstructions in the interest of aviation safety, when ordered, by signal or otherwise, to leave or not to approach that area by the appropriate air traffic control unit or flight service station or by the operator of the aerodrome;

(e) knowingly remove, deface, extinguish or interfere with a marker, marking, light or signal that is used at an aerodrome for the purpose of air navigation, except in accordance with permission given

(i) by the operator of the aerodrome, and

(ii) where applicable, by the appropriate air traffic control unit or flight service station;

(f) at a place other than an aerodrome, knowingly display a marker, marking, light or signal that is likely to cause a person to believe that the place is an aerodrome;

(g) knowingly display at or in the vicinity of an aerodrome a marker, marking, sign, light or signal that is likely to be hazardous to aviation safety by causing glare or by causing confusion with or preventing clear visual perception of a marker, marking, sign, light or signal that is required under this Subpart;

(h) allow a bird or other animal that is owned by the person or that is in the person's custody or control to be unrestrained within the boundaries of an aerodrome except for the purpose of controlling other birds or animals at the aerodrome as permitted by the operator; or

(i) discharge a firearm within or into an aerodrome without the permission of the operator of the aerodrome.

Fire Prevention

301.09 (1) Subject to subsection 301.07(12) and subsections (2) and (3), no person shall, while at an aerodrome, smoke or display an open flame

(a) on an apron;

(b) on an aircraft loading bridge or on a gallery or balcony that is contiguous to or that overhangs an apron; or

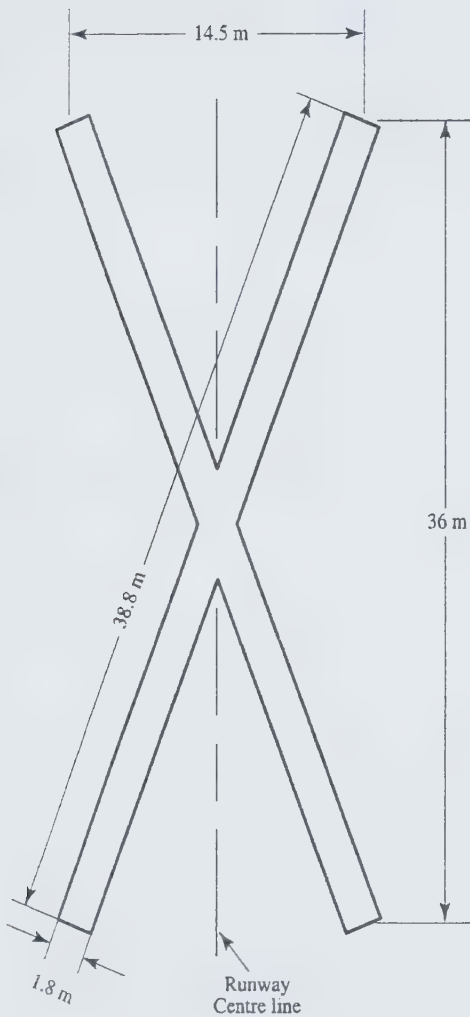
(c) in an area where smoking or the presence of an open flame is likely to create a fire hazard that could endanger persons or property.

(2) The operator of an aerodrome may, in writing, authorize maintenance or servicing operations on an apron that involve the use, production or potential development of an open flame or that involve the production or potential development of a spark where the operations are conducted in a manner that is not likely to create a fire hazard that could endanger persons or property.

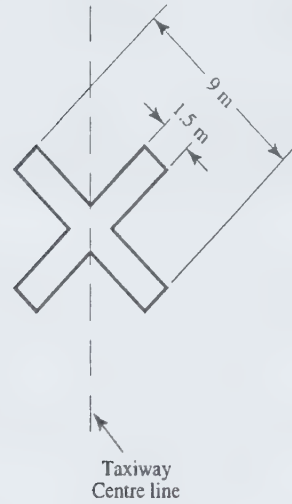
(3) The operator of an aerodrome may permit smoking in an enclosed building or shelter located on an apron where such smoking is not likely to create a fire hazard that could endanger persons or property.

SCHEDULE I
(Section 300.01 and subsections 301.04(4) and (5))
CLOSED MARKINGS

Closed Runway



Closed Taxiway



SCHEDULE II

(Subsection 301.07(11))

INTENSITY SETTINGS FOR LIGHTING SYSTEMS ACTIVATED BY RADIO CONTROL FROM AIRCRAFT

Visual Aid System	Number of Intensity Settings	Selected Level of Intensity (percentage of rated output of fixture)			
		System Providing 3 Sections (type K)			Single Selection Systems (type J)
		3 Clicks	5 Clicks	7 Clicks	
Medium Intensity Approach Lighting:					
Fixed Lights	3	4%	20%	100%	Note 1
Capacitor Discharge Lights	3	OFF	OFF or 10%	100%	Note 1
Omni Directional Approach Lighting Systems (ODALS)	3	6%	30%	100%	30%
Low Intensity Approach Lighting	1	100%	100%	100%	100%
Runway Edge, Threshold and End Lighting:					
Medium Intensity	3	10%	30%	100%	Note 2
Low Intensity	1	100%	100%	100%	100%
Runway Identification Lights (RILS)	1	OFF	OFF or 30%	100%	Note 3
	1	OFF	OFF or 100%	100%	
Wind Direction Indicator	1	100%	100%	100%	100%
Aerodrome Beacon	1	100%	100%	100%	100%

NOTE 1: Medium intensity approach lighting shall not be controlled by a system employing only one intensity selection except for Omni Directional Approach Lighting Systems (ODALS).

NOTE 2: These systems shall not be controlled by a system employing only one intensity selection.

NOTE 3: These fixtures may be set at 10%, 100% or OFF.



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PART III - AERODROMES, AIRPORTS AND HELIPORTS

SUBPART 2 - AIRPORTS

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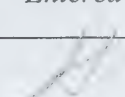
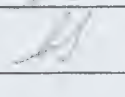
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SUBPART 2 - AIRPORTS

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302 - AIRPORTS

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PART III - AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

SUBPART 2 - AIRPORTS

DIVISION I - GENERAL

(amended 2006/05/05)

Application

302.01 (1) Subject to subsection (2), this Subpart applies in respect of

(a) an aerodrome that is located within the built-up area of a city or town;

(b) a land aerodrome that is used by an air operator for the purpose of a scheduled service for the transport of passengers; and

(c) any other aerodrome, other than an aerodrome referred to in subsection (2), in respect of which the Minister is of the opinion that meeting the requirements necessary for the issuance of an airport certificate would be in the public interest and would further the safe operation of the aerodrome.

(2) This Subpart does not apply in respect of

(a) a military aerodrome;

(b) a land aerodrome referred to in paragraph (1)(b) where the Minister has issued a written authorization for each air operator using the aerodrome to land at and take-off from the aerodrome; or

(c) heliports.

(amended 2007/06/30)

(3) The Minister shall issue an authorization referred to in paragraph (2)(b) where it is possible to specify conditions in the authorization that will ensure a level of safety in respect of the use of the aerodrome that is equivalent to the level of safety established by this Subpart, and, in any such authorization, the Minister shall specify those conditions.

Application for Airport Certificate

302.02 (1) An applicant for an airport certificate shall submit to the Minister for approval

(a) an application for an airport certificate; and

(b) a copy of the proposed airport operations manual in respect of the airport.

(2) The application referred to in paragraph (1)(a) shall be signed, in ink, by the applicant and shall be in the form set out in the aerodrome standards and recommended practices publications.

Issuance of Airport Certificate

302.03 (1) Subject to subsection 6.71(1) of the Act, the Minister shall issue an airport certificate to an applicant authorizing the applicant to operate an aerodrome as an airport if the proposed airport operations manual, submitted pursuant to paragraph 302.02(1)(b), is approved by the Minister pursuant to subsection (2) and

- (a) the standards set out in the aerodrome standards and recommended practices publications are met; or
- (b) on the basis of an aeronautical study, the Minister determines that
 - (i) the level of safety at the aerodrome is equivalent to that provided for by the standards set out in the aerodrome standards and recommended practices publications, and
 - (ii) the issuance of the airport certificate is in the public interest and not detrimental to aviation safety.

(2) The Minister shall approve a proposed airport operations manual if it

- (a) accurately describes the physical specifications of the aerodrome; and
- (b) conforms to the requirements set out in the aerodrome standards and recommended practices publications that apply in respect of an airport operations manual.

(3) Where an aerodrome does not meet a standard set out in the aerodrome standards and recommended practices publications, the Minister may specify in the airport certificate such conditions relating to the subject-matter of the standard as are necessary to ensure a level of safety equivalent to that established by the standard and as are necessary in the public interest and to ensure aviation safety.

Transfer of Airport Certificate

302.04 (1) When an airport certificate is transferred, it shall be transferred in accordance with this Section.

- (2) The Minister shall transfer an airport certificate to a transferee where
 - (a) the current holder of the airport certificate, at least 14 days before ceasing to operate the airport, notifies the Minister in writing that the current holder will cease to operate the airport as of the date specified in the notice;
 - (b) the current holder of the airport certificate notifies the Minister in writing of the name of the transferee;
 - (c) the transferee applies in writing to the Minister, within 14 days before the current holder ceases to operate the airport, for the airport certificate to be transferred to the transferee; and
 - (d) the requirements set out in Section 302.03 are met.

(3) An application referred to in paragraph (2)(c) shall include a copy of the notice referred to in paragraph (2)(a).

Interim Airport Certificate

302.05 (1) The Minister may, by mail, telex or facsimile machine, issue to an applicant referred to in Section 302.03 or a transferee referred to in Section 302.04 an interim airport certificate authorizing the applicant or transferee to operate an aerodrome as an airport if the Minister is satisfied that

(a) an airport certificate in respect of the aerodrome will be issued to the applicant or transferred to the transferee as soon as the application procedure in respect of the issuance or transfer is completed; and

(b) the issuance of the interim airport certificate is in the public interest and not detrimental to aviation safety.

(2) An interim airport certificate issued pursuant to subsection (1) expires on the earlier of

(a) the date on which the airport certificate is issued or transferred, and

(b) the date specified in the interim airport certificate on which it will expire.

(3) Except for paragraph 302.02(1)(b), subsections 302.03(1) and (2) and Section 302.08, this Subpart applies in respect of an interim airport certificate in the same manner as it applies in respect of an airport certificate.

Amendment and Cancellation of Airport Certificate

302.06 (1) The Minister may, if the requirements of Section 302.03 and paragraph 302.08(1)(c) are met, amend an airport certificate where

(a) there is a change in the use or operation of the airport;

(b) there is a change in the boundaries of the airport; or

(c) the holder of the airport certificate requests the amendment.

(2) The Minister shall cancel an airport certificate where this Subpart no longer applies in respect of the aerodrome referred to in the airport certificate, as determined in accordance with Section 302.01.

Obligations of Operator

302.07 (1) The operator of an airport shall

(a) comply

(i) subject to subparagraph (ii), with the standards set out in the aerodrome standards and recommended practices publications, as they read on the date on which the airport certificate was issued,

(ii) in respect of any part or facility of the airport that has been replaced or improved, with the standards set out in the aerodrome standards and recommended practices publications, as they read on the date on which the part or facility was returned to service, and

(iii) with any conditions specified in the airport certificate by the Minister pursuant to subsection 302.03(3);

(b) without charge, at the request of a Department of Transport inspector, allow access to airport facilities and provide the equipment necessary to conduct an inspection of the airport;

(c) review each issue of each aeronautical information publication on receipt thereof and, immediately after such review, notify the Minister of any inaccurate information contained therein that pertains to the airport;

(d) notify the Minister in writing at least 14 days before any change to the airport, the airport facilities or the level of service at the airport that has been planned in advance and that is likely to affect the accuracy of the information contained in an aeronautical information publication;

(e) as the circumstances require for the purpose of ensuring aviation safety, inspect the airport

(i) as soon as practicable after any aviation occurrence, as that term is defined in Section 2 of the Canadian Transportation Accident Investigation and Safety Board Act,

(ii) during any period of construction or repair of the airport or of airport facilities that are designated in the airport certificate, and

(iii) at any other time when there are conditions at the airport that could be hazardous to aviation safety;

(f) subject to paragraph (d), notify the Minister in writing of any change in airport operations within 14 days after the date of the change and

(g) assign duties on the movement area and any other area set aside for the safe operation of aircraft, including obstacle limitation surfaces, at the airport, which are described in the airport operations manual, only to employees who have successfully completed a safety-related initial training course on human and organizational factors
(amended 2008/01/01)

(2) Subject to subsection (3), the operator of an airport shall give to the Minister, and cause to be received at the appropriate air traffic control unit or flight service station, immediate notice of any of the following circumstances of which the operator has knowledge:

(a) any projection by an object through an obstacle limitation surface relating to the airport;

(b) the existence of any obstruction or hazardous condition affecting aviation safety at or in the vicinity of the airport;

(c) any reduction in the level of services at the airport that are set out in an aeronautical information publication;

(d) the closure of any part of the manoeuvring area of the airport; and

(e) any other conditions that could be hazardous to aviation safety at the airport and against which precautions are warranted.

(3) Where it is not feasible for an operator to cause notice of a circumstance referred to in subsection (2) to be received at the appropriate air traffic control unit or flight service station, the operator shall give immediate notice directly to the pilots who may be affected by that circumstance.

(4) The operator of an airport may remove from the surface of the airport any vehicle or other obstruction that is likely to be hazardous to aviation safety at or in the vicinity of the airport.

Airport Operations Manual

302.08 (1) The operator of an airport shall

(a) on the issuance of an airport certificate, provide the Minister with a copy of the airport operations manual, as approved by the Minister pursuant to subsection 302.03(2), and distribute copies of the applicable portions to the persons and institutions referred to in the airport operations manual;

(b) maintain the airport operations manual; and

(c) submit to the Minister for approval any proposed amendment to the airport operations manual.

(2) The provisions of this Subpart that apply in respect of the making of an airport operations manual also apply in respect of any amendment to an airport operations manual.

(3) An airport operations manual shall set out the standards to be met and the services to be provided by an airport operator.

(4) An airport operations manual shall contain

(a) a table of contents;

(b) any information relating to the administration of the airport, including

(i) a record of any amendments to the airport operations manual,

(ii) a list of holders of copies of the airport operations manual or of portions thereof,

(iii) a description of the procedure for amendment of the airport operations manual,

- (iv) a description of the organizational structure and operational procedures of the airport management,
 - (v) an enumeration of the obligations of the operator referred to in Section 302.07,
 - (vi) an undertaking, signed by the operator, in respect of the operator's obligations under paragraphs 302.07(1)(c) and (d),
 - (vii) a statement, signed by the operator, certifying that the airport operations manual is complete and accurate, and that the operator agrees to comply with all of the conditions and specifications referred to therein,
 - (viii) a statement, signed by the Minister, that the Minister has approved the airport operations manual and any amendments thereto, and
 - (ix) a copy of any agreement or memorandum of understanding that affects the operation of the airport;
- (c) all of the information necessary to verify that the airport meets the applicable standards set out in the aerodrome standards and recommended practices publications, as they read on the date on which the airport certificate was issued, and satisfies any conditions specified by the Minister pursuant to subsection 302.03(3) in respect of
- (i) physical characteristics,
 - (ii) obstacle limitation surfaces,
 - (iii) declared distances,
 - (iv) lighting,
 - (v) markers,
 - (vi) markings,
 - (vii) signs,
 - (viii) emergency response measures,
 - (ix) airport safety measures,
 - (x) access to the movement area and control procedures, and
 - (xi) apron management plans and apron safety plans;
- (d) an enumeration of the facilities and services provided and the measures in effect at the airport, including
- (i) movement area maintenance services,
 - (ii) measures for the removal of disabled aircraft,
 - (iii) air traffic services and aeronautical information and communication services,

- (iv) navigation aids, and
- (v) aviation weather services;
- (e) a description of movement area services and facilities provided at the discretion of the operator and
 - (f) with respect to the safety management system required under section 107.02 amended 2008/01/01)
 - (i) a description of the system's components specified in section 302.502, and
 - (ii) a list of the titles, dates and locations of any documents that are not in the airport operations manual and that describe how the operator is meeting its obligations with respect to the safety management system
- (5) The operator of an airport shall operate the airport in accordance with the airport operations manual.

Warning Notices

302.09 Where low-flying or taxiing aircraft at or in the vicinity of an airport are likely to be hazardous to pedestrian or vehicular traffic, the operator of the airport shall immediately

- (a) post notices warning of the hazard on any public way that is adjacent to the manoeuvring area; or
- (b) where such a public way is not owned or controlled by the operator, inform the authorities responsible for posting notices on the public way that there is a hazard.

Prohibitions

302.10 No person shall

- (a) operate an aerodrome referred to in subsection 302.01(1) unless an airport certificate is issued in respect of that aerodrome;
- (b) knowingly use an airport in a manner contrary to a condition set out in the airport certificate;
- (c) walk, stand, drive a vehicle, park a vehicle or aircraft or cause an obstruction on the movement area of an airport, except in accordance with permission given
 - (i) by the operator of the airport, and
 - (ii) where applicable, by the appropriate air traffic control unit or flight service station;
- (d) operate any vessel, or cause any obstruction, on the surface of any part of a water area of an airport that is to be kept clear of obstructions in the interest of aviation safety, when ordered, by signal or otherwise, to leave or not to approach that area by the appropriate air traffic control unit or flight service station or by the operator of the airport;

(e) tow an aircraft on an active movement area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lights mounted on the towing vehicle and directed at the aircraft being towed;

(f) park or otherwise leave an aircraft on an active manoeuvring area at night unless the aircraft displays operating wingtip, tail and anti-collision lights or is illuminated by lanterns suspended from the wingtips, tail and nose of the aircraft;

(g) at an airport, knowingly remove, deface, extinguish or interfere with a marker, marking, light or signal that is used for the purpose of air navigation, except in accordance with permission given

(i) by the operator of the airport, and

(ii) where applicable, by the appropriate air traffic control unit or flight service station;

(h) at or in the vicinity of an airport, knowingly display a marker, marking, sign, light or signal that is likely to be hazardous to aviation safety by causing glare or by causing confusion with or preventing clear visual perception of a marker, marking, sign, light or signal that is required under this Subpart;

(i) allow a bird or other animal that is owned by the person or that is in the person's custody or control to be unrestrained within the boundaries of an airport, except for the purpose of controlling other birds or animals at the airport as permitted by the operator; or

(j) discharge a firearm within or into an airport without the permission of the operator of the airport.

Fire Prevention

302.11 (1) Subject to subsections (2) to (4), no person shall, at an airport, smoke or display an open flame

(a) on an apron;

(b) on an aircraft loading bridge or on a gallery or balcony that is contiguous to or that overhangs an apron; or

(c) in an area where smoking or an open flame is likely to create a fire hazard that could endanger persons or property.

(2) The operator of an airport may display flare pots to provide temporary lighting for the take-off or landing of aircraft.

(3) The operator of an airport may, in writing, authorize maintenance or servicing operations on an apron that involve the use, production or potential development of an open flame or that involve the production or potential development of a spark where the operations are conducted in a manner that is not likely to create a fire hazard that could endanger persons or property.

(4) The operator of an airport may permit smoking in an enclosed building or shelter located on an apron where such smoking is not likely to create a fire hazard that could endanger persons or property.

[302.12 to 302.200 reserved]
(amended 2008/11/28)

DIVISION II — AIRPORT EMERGENCY

PLANNING

(amended 2008/11/28)

Interpretation

302.201 The following definitions apply in this Division
(amended 2008/11/28)

“community organization” means an organization, corporation, department or public service.
organisme communautaire

“emergency coordination centre” means a designated area to be used in supporting and coordinating emergency operations. (*centre de coordination des urgences*)

“full emergency standby” means attendance at an emergency scene and preparedness to respond at the necessary level when an aircraft has, or may have, an operational problem that affects flight operations to the extent that there is a possibility of an accident. (*état d’alerte complet*)

“on-scene controller” means the person identified in an airport emergency plan as being responsible for the overall coordination of the response at an emergency scene.
coordonnateur sur place

“table top exercise” means an exercise requiring the participation of the community organizations and other resources identified in an airport emergency plan to review and coordinate their respective roles, responsibilities and response actions without actually activating the plan. (*exercice en salle*)

Airport Emergency Plan

General

302.202 (1) After consultation with a representative sample of the air operators that use the airport and with community organizations that may be of assistance during emergency operations at the airport or in its vicinity, the operator of an airport shall develop and maintain an emergency plan for the purpose of identifying
(amended 2008/11/28)

(a) the emergencies that can reasonably be expected to occur at the airport or in its vicinity and that could be a threat to the safety of persons or to the operation of the airport;

(b) the measures to activate the emergency plan for each type of emergency;

(c) the community organizations capable of providing assistance in an emergency; and

(d) any additional resources available at the airport and in the surrounding area.

(2) The operator of an airport shall establish a degree of supervision and control sufficient to manage the size and complexity of an emergency.

(3) The operator of an airport shall

(a) maintain at the airport, in the format of a manual, a copy of an updated version of the emergency plan; and

(b) provide a copy to the Minister on request.

(4) The operator of an airport shall

(a) update the emergency plan as necessary to ensure its effectiveness in emergency operations; and

(b) review the plan and make any required updates at least once a year after consultation with a representative sample of the air operators that use the airport and the community organizations identified in the plan.

Content

302.203 (1) In an emergency plan, the operator of an airport shall, at a minimum, amended 2008/11/28

(a) identify the potential emergencies, including

(i) an aircraft accident or incident

(A) within the airport boundaries, and

(B) within a critical rescue and fire-fighting access area that extends 1000 m beyond the ends of a runway and 150 m at 90° outwards from the centreline of the runway, including any part of that area outside the airport boundaries;

(ii) an aircraft emergency declared by either air traffic services or a pilot;

(iii) a fuel spill that spreads at least 1.5 m in any direction or exceeds 12 mm in depth;

(iv) a medical emergency;

(v) a fire in which airport operations or passenger safety is threatened;

(vi) an emergency that is related to a special aviation event and that might have an impact on airport operations;

(vii) a natural disaster, and

- (viii) any other emergency that is a threat or is likely to be a threat to the safety of persons or to the operation of the airport;
- (b) identify the organizations at the airport and the community organizations that are capable of providing assistance during an emergency at an airport or in its vicinity, provide the telephone numbers and other contact information for each organization and describe the type of assistance each can provide;
- (c) identify the other resources available at the airport and in the surrounding communities for use during emergency response or recovery operations and provide their telephone numbers and other contact information;
- (d) describe for emergency situations the lines of authority and the relationships between the organizations identified in the emergency plan and describe how actions will be coordinated among all and within each of the organizations;
- (e) identify for emergency situations the supervisors and describe the responsibilities of each;
- (f) specify the positions occupied by the airport personnel who will respond to an emergency and describe the specific emergency response duties of each;
- (g) identify the on-scene controller and describe the controller's emergency response duties;
- (h) provide authorization for a person to act as an on-scene controller or a supervisor if they are not airport personnel;
- (i) set out the criteria to be used for positioning the on-scene controller within visual range of an emergency scene;
- (j) set out the measures to be taken to make the on-scene controller easily identifiable at all times by all persons responding to an emergency;
- (k) if initial on-scene control has been assumed by a person from a responding organization, describe the procedure for transferring control to the on-scene controller;
- (l) describe any training and qualifications required for the on-scene controller and the airport personnel identified in the emergency plan;
- (m) describe the method for recording any training provided to the on-scene controller and airport personnel;
- (n) describe the communication procedures and specify the radio frequencies to be used to link the operator of the airport with
 - (i) the on-scene controller, and
 - (ii) the providers of ground traffic control services and air traffic control services at the airport;

(o) describe the communication procedures allowing the on-scene controller to communicate with the organizations identified in the emergency plan;

(p) identify the alerting procedures that

(i) activate the emergency plan;

(ii) establish the necessary level of response;

(iii) allow immediate communication with the organizations identified in the emergency plan in accordance with the required level of response;

(iv) if applicable, confirm the dispatch of each responding organization;

(v) establish the use of standard terminology in communications, and

(vi) establish the use of the appropriate radio frequencies as set out in the emergency plan;

(q) specify

(i) the airport communication equipment testing procedures;

(ii) a schedule for the testing, and

(iii) the method of keeping records of the tests;

(r) for airports designated under Subpart 3, specify the location of the emergency coordination centre used to provide support to the on-scene controller;

(s) describe the measures for dealing with adverse climatic conditions and darkness for each potential emergency set out in paragraph (a);

(t) describe the procedures to assist persons who have been evacuated if their safety is threatened or airside operations are affected;

(u) describe the procedures respecting the review and confirmation of the following to permit the return of the airport to operational status after an emergency situation:

(i) emergency status reports;

(ii) coordination with the coroner and the investigator designated by the Transportation Safety Board of Canada regarding the accident site conditions;

(iii) disabled aircraft removal;

(iv) airside inspection results;

(v) accident or incident site conditions, and

(vi) air traffic services and NOTAM coordination;

(v) describe the procedures for controlling vehicular flow during an emergency to ensure the safety of vehicles, aircraft and persons;

(w) specify the procedures for issuing a NOTAM in the event of

(i) an emergency affecting the critical category for fire fighting required under section 303.07, or

(ii) changes or restrictions in facilities or services at the airport during and after an emergency;

(x) describe the procedures for preserving evidence as it relates to

(i) aircraft or aircraft part removal, and

(ii) the site of the accident or incident in accordance with the *Canadian Transportation Accident Investigation and Safety Board Act*;

(y) describe the procedures to be followed, after any exercise set out in section 302.208 or the activation of the plan for an emergency that requires a full emergency standby, in the following cases:

(i) a post-emergency debriefing session with all participating organizations;

(ii) the recording of the minutes of the debriefing session;

(iii) an evaluation of the effectiveness of the emergency plan to identify deficiencies;

(iv) changes, if any, to be made in the emergency plan; and

(v) partial testing subsequent to the modification of an emergency plan;

(z) describe

(i) the process for an annual review and update of the emergency plan; and

(ii) the administrative procedure for the distribution of copies of an updated version of the emergency plan to the airport personnel who require them and to the community organizations identified in the plan; and

(z.1) describe the procedures to assist in locating an aircraft when the airport receives notification that an ELT has been activated;

(2) The operator of an airport shall include a copy of the following documents in the emergency plan:

(a) the signed agreements, if any, between the airport operator and the community organizations that provide emergency response services to the airport; and

(b) an airport grid map.

On-scene Controller

302.204 The on-scene controller shall be at the emergency site and shall not have other duties during an emergency, unless the life of a person is in danger nearby and the on-scene controller is alone and has the ability to assist the person
(amended 2008/11/28)

302.205 The operator of an airport shall establish procedures that make the on-scene controller easily identifiable by all persons responding to an emergency
(amended 2008/11/28)

Aircraft Crash Charts and Airport Grid Maps

302.206 (1) For aircraft operating in a passenger or cargo configuration, the operator of an airport shall make available to the emergency coordination centre aircraft crash charts specific to the aircraft used by the air operators that use the airport, and shall provide copies of the charts to
(amended 2008/11/28)

(a) the organizations responsible for fire-fighting services that are identified in the emergency plan; and

(b) the on-scene controller.

(2) In the case of aircraft that have or may have a seating configuration of not more than nine passenger seats, the operator of an airport may use, instead of the aircraft crash charts referred to in subsection (1), other documents containing equivalent information.

(3) The operator of an airport shall develop and review and update annually, if necessary, an airport grid map that includes a minimum of

(a) an area covering at least one kilometre around each runway

(b) the airport access roads and gates; and

(c) the location of rendezvous points to which persons and vehicles that are responding to an emergency situation proceed in order to receive instructions.

(4) The operator of an airport shall provide copies of the airport grid map to the airport personnel who must have one and the organizations identified in the emergency plan.

Personnel and Training

302.207 (1) The operator of an airport shall assign specific emergency response duties, other than those of an on-scene controller or a supervisor, only to those airport personnel who are identified in the emergency plan and who
(amended 2008/11/28)

(a) are knowledgeable of their duties as described in the plan; and

(b) have the skills to carry out their duties.

(2) The operator of an airport shall assign to act as an on-scene controller or a supervisor only those airport personnel, or other persons authorized by the operator in the emergency plan, who are

(a) knowledgeable about the contents of the emergency plan;

(b) familiar with the procedures for the overall coordination of emergency operations at an emergency site; and

(c) trained for the particular role that they perform.

(3) The operator of an airport shall

(a) keep records of the training that was received by persons to meet the requirements of subsections (1) and (2);

(b) preserve the records of training for three years after the day on which the training was received; and

(c) submit a copy of the training records to the Minister on request.

Testing of the Emergency Plan

302.208 (1) In this section, “international service” has the same meaning as in subsection 55(1) of the *Canada Transportation Act*.
(amended 2008/11/28)

(2) The operator of an airport shall test the emergency plan by conducting a full-scale exercise

(a) for the airports designated by the Minister in the *Canada Flight Supplement* to be used by international service, at intervals not exceeding two years; and

(b) for other airports, at intervals not exceeding four years.

(3) The operator of an airport shall conduct full-scale exercises based on scenarios that relate to a major aircraft accident and, at a minimum, the exercises shall include the assembly and deployment of fire-fighting, policing and medical services organizations.

(4) The operator of an airport shall conduct a table top exercise each year in which no full-scale exercise is conducted

(5) The operator of an airport, when conducting a table top exercise, shall have

(a) an up-to-date list of the participants and their telephone numbers and the radio frequencies used to communicate;

(b) fully operational communication equipment; and

(c) a copy of the airport grid map.

(6) The operator of an airport shall base the table top exercises on scenarios that include an aircraft accident or incident.

(7) The operator of an airport shall provide the Minister with a notice in writing of the date and time when a table top or full-scale exercise is to be carried out at least 60 days before the day of the exercise.

(8) The Minister may observe the testing of an emergency plan.

(9) After each exercise, the operator of an airport shall conduct a debriefing with all the organizations identified in the plan and a representative of the airport personnel who participated to evaluate the effectiveness of the emergency plan and identify deficiencies.

(10) The operator of an airport shall implement an action plan to correct any deficiencies in the emergency plan that were identified during a debriefing session.

(11) The operator of an airport shall conduct partial exercises to assess proposed changes in the plan in order to correct deficiencies.

(12) The operator of an airport shall record

(a) the date of an exercise;

(b) the type of exercise;

(c) the minutes of the debriefing session after the exercise; and

(d) any action plans to correct deficiencies that were identified during a debriefing session.

(13) The operator of an airport shall keep an exercise record for 10 years after the day on which the record is made.

(14) The operator of an airport shall submit debriefing minutes and corrective action plans relating to an exercise to the Minister on request.

Authorization

302.209 The Minister may, on application by the operator of an airport, provide to the operator written authorization not to conduct the full-scale exercise during an interval set out in paragraph 302.208(2)(a) or (b) if the operator demonstrates that the testing requirements for a full-scale exercise have been met through an activation of the emergency plan in response to an emergency during that interval.
(amended 2008/11/28)

302.210 to 302.300 reserved
(amended 2008/11/28)

**DIVISION III - AIRPORT WILDLIFE PLANNING
AND MANAGEMENT**
(amended 2006/05/05)

Interpretation

302.301 In this Division,
(amended 2006/05/05)

“waste disposal facility” means a landfill site, garbage dump, waste transfer and sorting facility, recycling and composting facility or commercial fish processing plant; (*installation d’élimination des déchets*)

“wildlife strike” means a collision between an aircraft and wildlife. (*impact faunique*)

Application

302.302 (1) Subject to subsection (2), this Division applies to airports
(amended 2006/05/05)

(a) that, within the preceding calendar year, had 2 800 movements of commercial passenger-carrying aircraft operating under Subpart 4 or 5 of Part VII;

(b) that are located within a built-up area;

(c) that have a waste disposal facility within 15 km of the geometric centre of the airport;

(d) that had an incident where a turbine-powered aircraft collided with wildlife other than a bird and suffered damage, collided with more than one bird or ingested a bird through an engine; or

(e) where the presence of wildlife hazards, including those referred to in section 322.302 of the *Airport Standards—Airport Wildlife Planning and Management*, has been observed in an airport flight pattern or movement area.

(2) Section 302.303 applies to all airports.

Wildlife Strikes

302.303 (1) The operator of an airport shall keep records of all wildlife strikes at the airport, including those reported by
(amended 2006/05/05)

- (a) pilots;
- (b) ground personnel; and
- (c) aircraft maintenance personnel when they identify damage to an aircraft as having been caused by a wildlife strike.

(2) Wildlife remains that are found within 200 feet of a runway or an airside pavement area are presumed to be a wildlife strike unless another cause of death is identified.

(3) The operator of the airport shall submit a written and dated report to the Minister

- (a) for each wildlife strike, within 30 days of its occurrence; or
- (b) for all wildlife strikes that occur in a calendar year, before March 1 of the following calendar year.

Risk Analysis

302.304 (1) The operator of an airport shall collect information in respect of the requirements set out in section 322.304 of the *Airport Standards—Airport Wildlife Planning and Management*.
(amended 2006/05/05)

(2) The operator of the airport shall, after consultation with a representative sample of the operators in respect of an aircraft, air operators and private operators that use the airport, conduct a risk analysis that evaluates the collected information.

(3) The risk analysis shall be in writing and include

- (a) an analysis of the risks associated with the wildlife hazards, including those referred to in section 322.302 of the *Airport Standards—Airport Wildlife Planning and Management*; and
- (b) the measures that are necessary to manage or remove the hazards or to manage or mitigate the risks.

(4) The operator of the airport shall, at the request of the Minister, make the risk analysis available for inspection.

Airport Wildlife Management Plan

General

302.305 (1) The operator of an airport shall develop an airport wildlife management plan in accordance with section 322.305 of the *Airport Standards—Airport Wildlife Planning and Management*.

(amended 2006/05/05)

(2) The operator of the airport shall submit the plan to the Minister, on request by the Minister, in accordance with the requirements set out in subsection 322.305(2) of the *Airport Standards—Airport Wildlife Planning and Management*.

(amended 2006/12/30)

(3) The operator of the airport shall keep a copy of the plan at the airport and it shall, on request by the Minister, be made available to the Minister.

(amended 2006/12/30)

(4) The operator of the airport shall implement the plan.

(amended 2006/12/30)

(5) The operator of the airport shall review the plan every two years.

(amended 2006/12/30)

(6) The operator of the airport shall amend the plan and submit the amended plan to the Minister within 30 days of the amendment if

(amended 2006/12/30)

(a) the amendment is necessary as a result of the review conducted under subsection (5);

(b) an incident has occurred in which a turbine-powered aircraft collided with wildlife other than a bird and suffered damage, collided with more than one bird or ingested a bird through an engine;

(c) a variation in the presence of wildlife hazards, including those referred to in section 322.302 of the *Airport Standards—Airport Wildlife Planning and Management*, has been observed in an airport flight pattern or movement area; or

(d) there has been a change

(i) in the wildlife management procedures or in the methods used to manage or mitigate wildlife hazards,

(ii) in the types of aircraft at the airport, or

(iii) in the types of aircraft operations at the airport.

Content

302.306 An airport wildlife management plan shall
(amended 2006/05/05)

- (a) identify and describe the risks associated with all wildlife hazards, including those referred to in section 322.302 of the *Airport Standards—Airport Wildlife Planning and Management*, at or near the airport that might affect the safe operation of aircraft, including the proximity of any waste disposal facility or migration route affecting wildlife populations near the airport;
- (b) specify the particular measures that are used by the operator of the airport to manage or mitigate the risks;
- (c) identify and describe the actions that are used by the operator of the airport to satisfy the requirements set out in section 322.306 of the *Airport Standards—Airport Wildlife Planning and Management* in respect of firearm certificates and permits, wildlife control permits, wildlife strikes, wildlife management logs, and evaluations of habitats, land uses and food sources at or near the airport;
- (d) set out a policy for the management of airport habitats that might attract wildlife;
- (e) set out a policy that prohibits the feeding of wildlife and the exposure of food wastes;
- (f) set out a procedure to ensure that all endangered or protected wildlife at the airport are inventoried;
- (g) identify the role of the personnel and agencies involved in wildlife management issues and provide the contact numbers for each; and
- (h) provide details of any wildlife hazard awareness program.

Training

302.307 (1) The operator of an airport shall
(amended 2006/12/30)

- (a) provide training for any person who has duties in respect of the airport wildlife management plan at least once every five years regarding their assigned duties and the matters set out in section 322.307 of the *Airport Standards—Airport Wildlife Planning and Management*; and
- (b) ensure that any person who has duties in respect of the airport wildlife management plan holds any required firearm permit.

(2) The operator of the airport shall maintain a record of each person's training for a period of five years and provide the Minister with a copy of any record, if requested.

Communication and Alerting Procedure

302.308 The operator of an airport shall establish a communication and alerting procedure for wildlife management personnel in accordance with section 322.308 of the *Airport Standards—Airport Wildlife Planning and Management* to alert pilots as soon as possible of the wildlife hazards at the airport and the risks associated with those hazards.
(amended 2006/05/05)

[302.309 to 302.400 reserved]
(amended 2006/05/05)

DIVISION IV — RESERVED

(amended 2008/01/01)

[302.401 to 302.499 reserved]
(amended 2008/01/01)

DIVISION V — SAFETY MANAGEMENT SYSTEM

(amended 2008/01/01)

Application

302.500 (1) This Division applies to an applicant for, or a holder of, an airport certificate issued under section 302.03 in respect of the following airports:
(amended 2008/01/01)

(a) Calgary International;

(b) Edmonton International;

(c) Gander International;

(d) Halifax Robert L. Stanfield International;

(e) Montréal - Pierre Elliott Trudeau International;

(f) Ottawa Macdonald-Cartier International;

(g) St. John's International;

(h) Toronto / Lester B. Pearson International;

(i) Vancouver International; and

(j) Winnipeg James Armstrong Richardson International.

(2) On and after January 1, 2009, this Division applies to an applicant for, or a holder of, an airport certificate issued under section 302.03.

Requirements

302.501 The safety management system required under section 107.02 in respect of an applicant for, or a holder of, an airport certificate shall
(amended 2008/01/01)

(a) meet the requirements of Subpart 7 of Part I and section 302.502; and

(b) be under the control of the accountable executive appointed under paragraph 106.02(1)(a)

Components of the Safety Management System

302.502 The safety management system shall include, among others, the following components:
(amended 2008/01/01)

(a) a safety management plan that includes

(i) a safety policy that the accountable executive has approved and communicated to all employees

(ii) the roles and responsibilities of personnel assigned duties under the safety management system

(iii) performance goals and a means of measuring attainment of those goals

(iv) a policy for the internal reporting of hazards, incidents and accidents, including the conditions under which immunity from disciplinary action will be granted, and

(v) a process for reviewing the safety management system to determine its effectiveness

(b) procedures for reporting hazards, incidents and accidents to the appropriate manager

(c) procedures for the collection of data relating to hazards, incidents and accidents

(d) procedures for the exchange of information in respect of hazards, incidents and accidents among the operators of aircraft and the provider of air traffic services at the airport and the airport operator

(e) procedures for analysing data obtained under paragraph (c) and during an audit conducted under a quality assurance program required under paragraph 107.03(g) and for taking corrective actions

(f) training requirements for the person managing the safety management system and for personnel assigned duties under the safety management system

- (g) procedures for making progress reports to the accountable executive at intervals determined by the accountable executive and other reports as needed in urgent cases; and
- (h) procedures for involving employees in the implementation and ongoing development of the safety management system.

Quality Assurance Program

302.503 (1) The quality assurance program required under paragraph 107.03(g) in respect of an applicant for, or a holder of, an airport certificate shall include a process for quality assurance that includes periodic reviews or audits of the activities authorized under a certificate and reviews or audits, for cause, of those activities.
(amended 2008/01/01)

(2) The holder of an airport certificate shall ensure that records relating to the findings resulting from the quality assurance program are distributed to the appropriate manager for corrective action and follow-up in accordance with the policies and procedures specified in the airport operations manual.

(3) The holder of an airport certificate shall establish an audit system in respect of the quality assurance program that consists of the following:

(a) an initial audit conducted within 12 months after

(i) in the case of an airport specified in subsection 302.500(1), the later of January 1, 2008 and the day on which the airport certificate is issued, and

(ii) in the case of any other airport, the later of January 1, 2009 and the day on which the airport certificate is issued;

(b) an audit of the entire quality assurance program carried out every three years, calculated from the initial audit, in one of the following ways:

(i) a complete audit, or

(ii) a series of audits conducted at intervals set out in the airport operations manual;

(c) checklists of all activities controlled by the airport operations manual;

(d) a record of each occurrence of compliance or non-compliance with the airport operations manual found during an audit referred to in paragraph (a) or (b);

(e) procedures for ensuring that each finding of an audit is communicated to the accountable executive;

(f) follow-up procedures for ensuring that corrective actions are effective; and

(g) a system for recording the findings of an audit referred to in paragraph (a) or (b), corrective actions and follow-ups.

(4) The records resulting from a system required under paragraph (3)(g) shall be retained for the greater of

(a) two audit cycles, and

(b) two years

(5) The duties related to the quality assurance program that involve specific tasks or activities among the activities of an airport shall be fulfilled by persons who are not responsible for carrying out those tasks or activities unless

(a) the size, nature and complexity of the operations and activities authorized under the airport certificate justify the fulfilling of those duties by the person responsible for carrying out those tasks or activities

(b) the holder of the airport certificate demonstrates to the Minister, by means of a risk analysis, that the fulfilling of those duties by the person responsible for carrying out those tasks or activities will not result in an unacceptable risk to aviation safety; and

(c) the holder of the airport certificate provides the Minister, in writing, with the information required under paragraphs (a) and (b)

Duties of the Certificate Holder

302.504 The holder of an airport certificate shall
amended 2008/01/01

(a) ensure that corrective actions are taken in respect of any findings resulting from the safety management system referred to in section 302.501

(b) appoint a person to manage the safety management system; and

(c) ensure that the person managing the safety management system performs the duties required under section 302.505

Person Managing the Safety Management System

302.505 (1) The person managing the safety management system shall
amended 2008/01/01

(a) establish and maintain a reporting system to ensure the timely collection of information related to hazards, incidents and accidents that may adversely affect safety

(b) identify hazards and carry out risk management analyses of those hazards

(c) investigate, analyze and identify the cause or probable cause of all hazards, incidents and accidents identified under the safety management system

(d) establish and maintain a safety data system, by either electronic or other means, to monitor and analyze trends in hazards, incidents and accidents

(e) monitor and evaluate the results of corrective actions with respect to hazards, incidents and accidents;

(f) monitor the concerns of the civil aviation industry in respect of safety and their perceived effect on the holder of the airport certificate; and

(g) determine the adequacy of the training required by paragraph 302.502(f).

(2) The person managing the safety management system shall, if a finding resulting from the safety management system referred to in section 302.501 is reported to them

(a) determine what, if any, corrective actions are required and carry out those actions;

(b) keep a record of any determination made under paragraph (a) and the reason for it;

(c) if management functions have been assigned to another person under subsection (3), communicate any determination regarding a corrective action to that person; and

(d) notify the certificate holder of any systemic deficiency and of the corrective action taken.

(3) The person managing the safety management system may assign the management functions for the safety management system referred to in section 302.501 to another person if the assignment and its scope are described in the airport operations manual.

(4) The person to whom management functions have been assigned under subsection (3) shall notify the person managing the safety management system of any systemic deficiency and of the corrective action taken.

(5) The responsibility of the accountable executive is not affected by the appointment of a person to manage the safety management system under paragraph 302.504(b) or the assignment of management functions to another person under subsection (3).



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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS

SUBPART 3 - AIRCRAFT RESCUE AND FIRE FIGHTING AT AIRPORTS AND AERODROMES

303

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NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS *

<i>Number</i>	<i>Date of Amendment</i>	<i>Date Entered</i>	<i>Entered by</i>

* All persons making use of this consolidation are reminded that it is not an "official" copy. The original regulations and amendments thereto, as published in Part II of the *Canada Gazette*, should be consulted for the purpose of officially interpreting and applying the regulations.

[illegible]

303 - AIRCRAFT RESCUE AND FIRE FIGHTING AT AIRPORTS AND AERODROMES

(amended 2003/03/01)

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PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

SUBPART 3 - AIRCRAFT RESCUE AND FIRE FIGHTING AT AIRPORTS AND AERODROMES

(amended 2003/03/01)

DIVISION I - GENERAL

Interpretation

303.01 In this Subpart,

“aircraft category for fire fighting” means an aircraft category, determined in accordance with section 303.05 for the purpose of fighting fires involving aircraft; (*catégorie d’aéronefs - SLIA*)

(amended 2002/06/10)

“aircraft fire-fighting standards” means the *Aerodrome and Airport Standards respecting Aircraft Fire Fighting at Airports and Aerodromes* published under the authority of the Minister; (*normes de lutte contre les incendies d’aéronefs*)

“critical category for fire fighting” means the aircraft category that

(a) in respect of a designated airport, is determined in accordance with section 303.07 for the purpose of establishing the required level of service for fighting fires involving aircraft at the airport, and

(b) in respect of a participating airport or aerodrome, is specified for the airport or aerodrome in the *Canada Flight Supplement* and corresponds to the level of service for fighting fires involving aircraft at that airport or aerodrome; (*catégorie critique - SLIA*)

“designated airport”

[Repealed 2007/06/30]

“in response posture” means, in respect of personnel, in a location at or near the airport or aerodrome that will permit an operator to obtain a satisfactory result in a response test referred to in subsection 303.18(4); (*en position d’intervention*)
(amended 2003/03/01)

“participating airport or aerodrome” means an airport, other than a designated airport, or an aerodrome, for which a critical category for fire fighting is specified in the *Canada Flight Supplement*; (*aéroport ou aérodrome participant*)

“rescue” means the act of evacuating persons from an aircraft involved in an aircraft accident or incident at an airport by means of fire suppression and then, if circumstances permit, aircraft entry. (*sauvetage*)
(amended 2003/03/01)

Application

303.02 (1) This Subpart, except subsections 303.03(2) and 303.04(4), applies in respect of a designated airport, which is an airport at which, according to the statistics referred to in subsection 303.06(1), the total of the number of passengers that are emplaned and the number of passengers that are deplaned is more than 180,000 per year.
(amended 2006/06/30)

(2) This Subpart, except subsections 303.03(1) and 303.04(1) to (3), sections 303.06 and 303.07, subsection 303.10(2) and sections 303.11 and 303.12, applies in respect of a participating airport or aerodrome.
(amended 1998/08/26)

General Requirements

303.03 (1) The operator of a designated airport shall provide the aircraft fire-fighting vehicles and the personnel required under this Subpart to respond to an aircraft emergency at the airport
(amended 2006/06/30)

(a) in the case of an airport listed in the schedule to this Subpart, on the coming into force of these Regulations; and
(amended 2006/06/30)

(b) in any other case, twelve months after the statistics compiled in accordance with subsection 303.06(1) show that the airport meets the criteria for a designated airport set out in subsection 303.02(1).
(amended 2006/06/30)

(2) The operator of a participating airport or aerodrome shall provide the aircraft fire-fighting vehicles and the personnel required pursuant to this Subpart that correspond to the critical category for fire-fighting published in the *Canada Flight Supplement* to respond to an aircraft emergency at the airport or aerodrome.

***Hours of Operation of an Aircraft Fire-fighting
Service***

303.04 (1) Subject to subsection (2), the operator of a designated airport shall
(amended 1998/08/26)

(a) at the beginning of each month and after consultation with the air operators that use the airport, establish the hours of operation of an aircraft fire-fighting service for the month and ensure that those hours coincide with at least 90 per cent of the movements during that month by commercial passenger-carrying aircraft at the airport of which the operator receives notice at least 30 days in advance; and

(b) ensure that the critical category for fire fighting and the hours of operation of an aircraft fire fighting service are published in the *Canada Flight Supplement* and in a NOTAM, if the NOTAM is published earlier.

(amended 2006/06/30)

(2) Subject to subsection (5), the operator of a designated airport shall provide an aircraft fire-fighting service for the operation at the airport of aeroplanes in respect of which a type certificate has been issued authorizing the transport of 20 or more passengers, if the aeroplanes are operated under

(amended 2003/03/01)

(a) Part VI, Subpart 4; or

(amended 2003/03/01)

(b) Part VII, Subpart 1 or 5.

(amended 2003/03/01)

(3) The operator of a designated airport shall provide an aircraft fire-fighting service until an aircraft referred to in subsection (2) has taken off or landed or the flight has been cancelled.

(amended 1998/08/26)

(4) The operator of a participating airport or aerodrome shall establish the hours during which an aircraft fire-fighting service is to be operated and shall ensure that the hours are published in the *Canada Flight Supplement* and in a NOTAM, if the NOTAM is published earlier.

(amended 1998/08/26)

(5) Subsection (2) does not apply in respect of

(amended 2003/03/01)

(a) a cargo flight without passengers;

(b) a ferry flight;

(c) a positioning flight;

(d) a training flight if no fare-paying passengers are on board;

(e) the arrival of an aeroplane when the airport is being used for a diversion or as an alternate aerodrome; or

(f) the subsequent departure of an aeroplane referred to in paragraph (e), if it is conducted in accordance with paragraph 602.96(7)(f).

Aircraft Category for Fire Fighting

303.05 (1) An aircraft category for fire fighting set out in Column I of an item of the table to this subsection shall be established for an aircraft based on the aircraft overall length set out in Column II of the item and the aircraft maximum fuselage width set out in Column III of that item.

Table

	Column I	Column II	Column III
Item	Aircraft Category for Fire Fighting	Aircraft Overall Length	Aircraft Maximum Fuselage Width
1.	1	less than 9 m	2 m
2.	2	at least 9 m but less than 12 m	2 m
3.	3	at least 12 m but less than 18 m	3 m
4.	4	at least 18 m but less than 24 m	4 m
5.	5	at least 24 m but less than 28 m	4 m
6.	6	at least 28 m but less than 39 m	5 m
7.	7	at least 39 m but less than 49 m	5 m
8.	8	at least 49 m but less than 61 m	7 m
9.	9	at least 61 m but less than 76 m	7 m
10.	10	at least 76 m	8 m

(2) Where the fuselage width of an aircraft that has an overall length within the range set out in column II of an item of the table to subsection (1) is greater than the aircraft maximum fuselage width set out in column III of the item, the aircraft category for fire fighting for the aircraft shall be one category higher than the category set out in column I of that item.

***Statistics on the Number of Passengers and Aircraft
Movements***

(amended 2006/06/30)

303.06 (1) The operator of an airport or aerodrome shall review, at least once every six months, the statistics in respect of the number of emplaned and deplaned passengers resulting from the *Electronic Collection of Air Transportation Statistics* project carried out jointly by the Department of Transport and Statistics Canada for the twelve months preceding the date of the review and determine whether the airport or aerodrome qualifies as a designated airport under subsection 303.02(1).

(amended 2006/06/30)

(2) The operator of a designated airport shall compile monthly statistics setting out the number of movements by commercial passenger-carrying aircraft in each aircraft category for fire fighting.

(3) The operator of a designated airport shall, at least once every six months, review the monthly statistics for the twelve months preceding the date of the review and determine the three consecutive months with the highest total number of movements by commercial passenger-carrying aircraft in all aircraft categories for fire fighting.

(amended 2006/06/30)

(4) Where the review shows more than one period of three consecutive months having the same total number of movements by commercial passenger-carrying aircraft, the period to be used for the purposes of section 303.07 is

(a) the period involving the highest aircraft category for fire fighting; or

(b) where those periods involve the same highest aircraft category for fire fighting, the period involving the greatest number of movements in that category.

(5) The Minister may, in writing, on application by the operator of a designated airport, authorize the operator to cease providing an aircraft fire-fighting service if the operator demonstrates by means of a risk analysis based on Standard CAN/CSA-Q850-97 entitled *Risk Management: Guideline for Decision-makers* as amended from time to time that the cessation of the aircraft fire-fighting service will not result in an unacceptable risk to aviation safety.

(amended 2006/06/30)

(6) If the Minister issues an authorization under subsection (5), the operator of a designated airport shall submit the content of the authorization for publication in the *Canada Flight Supplement* and in a NOTAM, if the NOTAM is published earlier.

(amended 2006/06/30)

(7) The operator of a designated airport shall

(a) retain the monthly statistics referred to in subsection (2) for five years after the date of the review; and

(amended 2006/06/30)

(b) provide them to the Minister at the Minister's request.

(amended 2006/06/30)

Critical Category for Fire Fighting

303.07 (1) The operator of a designated airport shall determine a critical category for fire fighting for the airport based on the number of movements at the airport during the three-month period determined in accordance with subsection 303.06(3) or (4) by commercial passenger-carrying aircraft in the highest and the next highest aircraft categories for fire fighting.

(amended 2006/06/30)

(2) Where, during the period referred to in subsection (1), the number of movements at the designated airport by aircraft in the highest aircraft category for fire fighting is 700 or more, the critical category for fire fighting is equivalent to that highest aircraft category for fire fighting.

(3) If, during the period referred to in subsection (1), the number of movements at the designated airport by aircraft in the highest aircraft category for fire fighting is less than 700, the critical category for fire fighting shall be determined by decreasing the highest aircraft category for fire fighting by one category.

(amended 2003/06/01)

(4) If the operator of a designated airport anticipates a period of one or more hours of movements of aircraft of a lower aircraft category for fire fighting only, the operator may reduce the critical category for fire fighting to the highest aircraft category for fire fighting anticipated for that period if the operator

(amended 2003/03/01)

(a) documents the anticipated situation; and

(b) notifies the appropriate air traffic control unit or flight service station of the reduced critical category for fire fighting for publication in a NOTAM.

DIVISION II - EXTINGUISHING AGENTS AND AIRCRAFT FIRE-FIGHTING VEHICLES

Extinguishing Agents and Equipment

303.08 The operator of a designated airport or of a participating airport or aerodrome shall provide its aircraft fire-fighting service with both the principal and the complementary extinguishing agents and the equipment delivering the agents that meet the requirements set out in the aircraft fire-fighting standards.

Extinguishing Agent and Aircraft Fire-fighting Vehicle Requirements

303.09 Subject to sections 303.10 and 303.11, the operator of a designated airport or of a participating airport or aerodrome the critical category for fire fighting of which is set out in column I of an item of the table to this section shall provide to the aircraft fire-fighting service at the airport or aerodrome the quantities of water and complementary extinguishing agents set out in columns II and III of the item, and the minimum number of aircraft fire-fighting vehicles set out in column IV of that item necessary to provide the total discharge capacity set out in column V of that item.

Table

	Column I	Column II	Column III	Column IV	Column V
Item	Critical Category for Fire Fighting	Quantity of Water (in litres)	Quantity of Complementary Extinguishing Agents (in kilograms)	Minimum Number of Aircraft Fire-fighting Vehicles	Total Discharge Capacity (in litres per minute)
1.	1	230	45	1	230
2.	2	670	90	1	550
3.	3	1 200	135	1	900
4.	4	2 400	135	1	1 800
5.	5	5 400	180	1	3 000
6.	6	7 900	225	2	4 000
7.	7	12 100	225	2	5 300
8.	8	18 200	450	3	7 200
9.	9	24 300	450	3	9 000
10.	10	32 300	450	3	11 200

Temporary Exemption

303.10 (1) Subject to subsection (2), the operator of a designated airport or of a participating airport or aerodrome does not have to meet the requirements referred to in section 303.09 where those requirements cannot be met because of a personnel shortage or unserviceable equipment at the airport or aerodrome caused by circumstances beyond the control of its operator and a notification of the reduced level of aircraft fire-fighting service at the airport or aerodrome has been given to the appropriate air traffic control unit or flight service station for publication in a NOTAM.

(2) When the condition described in subsection (1) continues for seven days or more, the operator of a designated airport shall, no later than seven days after the onset of the condition,

(a) establish a plan specifying the corrective measures that are necessary to meet the requirements of section 303.09 and the dates by which those measures shall be taken, which dates shall be as early as practicable given the circumstances; and

(b) submit the plan to the Minister.

(3) The operator of a designated airport shall implement the submitted plan by the date specified in the plan.

Authorization Respecting Reduced Requirements

303.11 (1) The Minister may, in writing, on application by the operator of a designated airport, authorize the operator to meet the requirements set out in the table to section 303.09 for a lower critical category for fire fighting than that established for the airport pursuant to section 303.07 where that operator demonstrates that

(a) the critical category for fire fighting was the result of movements by unusually large commercial passenger-carrying aircraft or an unusually high number of movements by commercial passenger-carrying aircraft at the airport and either of these situations is unlikely to be repeated within the next year; or

(b) the number of movements by, or the size of, commercial passenger-carrying aircraft at the airport is expected to be altered in a manner that would result in a lower critical category for fire fighting.

(2) Where a written authorization has been issued pursuant to subsection (1), the operator of the designated airport shall meet the requirements set out in the table to section 303.09 for the lower critical category for fire fighting specified in the authorization and shall ensure that

(a) notification of the reduced level of aircraft fire-fighting service and the period during which the level is reduced is given to the appropriate air traffic control unit or flight service station for publication in the *Canada Flight Supplement* and in a NOTAM, where the NOTAM is published earlier;

(b) procedures are established to restore the level of aircraft fire-fighting service to the previous higher level if the reduction in the number of movements by, or in the size of, commercial passenger-carrying aircraft at the airport is temporary; and

(c) the procedures for a reduction in the level of aircraft fire-fighting service and the procedures referred to in paragraph (b) are set out in the airport operations manual.

Adjustment to Higher Requirements

303.12 Where an increase in the number of movements by, or in the size of, commercial passenger-carrying aircraft at a designated airport results in the establishment for the airport of a higher critical category for fire fighting than the previous category, the operator of the airport shall meet the requirements for that higher category as set out in the table to section 303.09 within one year after the date of establishing the higher critical category for fire fighting.

DIVISION III - PERSONNEL REQUIREMENTS

Minimum Personnel

303.13 During the hours of operation of the aircraft fire-fighting service, the operator of a designated airport or of a participating airport or aerodrome shall ensure that trained aircraft fire-fighting personnel are in response posture and in sufficient number to operate the aircraft fire-fighting vehicles and apply the extinguishing agents required by section 303.09.
(amended 2003/03/01)

Training of Personnel

303.14 The operator of a designated airport or of a participating airport or aerodrome shall ensure that all personnel assigned to aircraft fire-fighting duties are trained in accordance with the aircraft fire-fighting standards.

Equipment and Protective Clothing

303.15 The operator of a designated airport or of a participating airport or aerodrome shall provide all personnel assigned to aircraft fire-fighting duties with the equipment and protective clothing necessary to perform their duties.

Firefighter Qualifications

303.16 (1) No operator of a designated airport or of a participating airport or aerodrome shall permit a person to act and no person shall act as an aircraft firefighter at the airport or aerodrome unless the person has, within the previous 12 months, successfully completed the training specified in the aircraft fire-fighting standards.

(2) The operator of a designated airport or of a participating airport or aerodrome shall

(a) maintain, for each aircraft firefighter, a training record containing the information specified in the aircraft fire-fighting standards;

(b) preserve the training record for three years after the aircraft firefighter leaves the service of the airport or aerodrome; and

(c) at the request of the Minister, provide the Minister with a copy of the training record.

DIVISION IV - RESPONSE READINESS

Personnel Readiness

303.17 The operator of a designated airport or of a participating airport or aerodrome shall ensure that, during the hours of operation of its aircraft fire-fighting service, of the fire-fighting personnel required to be available pursuant to section 303.13, the number of personnel capable of immediate response is sufficient to meet the requirements of the response test referred to in section 303.18.

Response Test

303.18 (1) The operator of a designated airport or of a participating airport or aerodrome shall carry out a response test to evaluate the response time and effectiveness of the aircraft fire-fighting service required to be maintained during the hours of operation specified in section 303.04

(a) every 12 months; and

(b) at any time at the request of the Minister, where the Minister has reasonable grounds to believe that the aircraft fire-fighting service at the airport or aerodrome does not meet the requirements of this Subpart.

(2) The operator of a designated airport or of a participating airport or aerodrome shall give the Minister at least four weeks written notice of the date on which a response test is to be carried out.

(3) The operator of a designated airport or of a participating airport or aerodrome shall provide the Minister with a copy of the results of a response test within 14 days after the date of the test.

(4) A response test at a designated airport or at a participating airport or aerodrome has a satisfactory result if

(a) within three minutes after an alarm is sounded, aircraft fire-fighting vehicles in a number sufficient for applying the principal extinguishing agent at 50 per cent of the total discharge capacity required by section 303.09 are dispatched from their assigned position and, under optimum surface and visibility conditions at the airport or aerodrome, reach the midpoint of the farthest runway serving commercial passenger-carrying aircraft, or another predetermined point of comparable distance and terrain; and

(b) within four minutes after the alarm is sounded, any other aircraft fire-fighting vehicle required by section 303.09 reaches the location referred to in paragraph (a).

(amended 2003/06/01)

(5) The operator of a designated airport or of a participating airport or aerodrome shall record the results of a response test and shall preserve the records for two years after the date of the test.

(6) If a response test does not have a satisfactory result, the operator of a designated airport or of a participating airport or aerodrome shall
(amended 2003/03/01)

(a) within six hours after the test, identify the deficiencies that caused the result and notify the appropriate air traffic control unit or flight service of the critical category for fire fighting that corresponds to the level of service that can be provided, for publication in a NOTAM; and
(amended 2003/03/01)

(b) within seven days after the test, if any deficiency is not corrected, submit a plan to the Minister specifying the measures necessary to obtain a satisfactory result and the dates by which they must be taken, which shall be as early as practicable given the circumstances.
(amended 2003/03/01)

(7) The operator of a designated airport or of a participating airport or aerodrome shall implement the submitted plan by the dates specified in the plan.

DIVISION V - COMMUNICATION AND ALERTING SYSTEM

Requirement

303.19 The operator of a designated airport or of a participating airport or aerodrome shall provide a communication and alerting system that meets the aircraft fire-fighting standards.

Transitional Provisions

303.20 (1) The operator of a designated airport shall

(a) until November 30, 1998, except in respect of aircraft referred to in subsection 303.04(2), maintain the aircraft fire-fighting service that was provided on November 30, 1997; and
(amended 1998/08/26)

(b) effective December 1, 1998, meet the requirements for an aircraft fire-fighting service prescribed in subsections 303.03(1) and 303.04(1) and sections 303.07 to 303.19.

(2) The operator of a participating airport or aerodrome shall, effective December 1, 1998, meet the requirements for an aircraft fire-fighting service prescribed in subsections 303.03(2) and 303.04(4), sections 303.08 and 303.09, subsection 303.10(1) and sections 303.13 to 303.19.
(amended 1998/08/26)

Schedule

[Repealed 2007/06/30]



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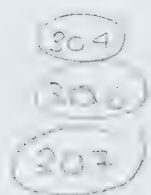
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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS



***SUBPART 4- RESERVED
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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS



SUBPART 5 - HELIPORTS

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NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS *

<i>Number</i>	<i>Date of Amendment</i>	<i>Date Entered</i>	<i>Entered by</i>
2321-2	2011/12/31	2012/05/10	

* All persons making use of this consolidation are reminded that it is not an “official” copy. The original regulations and amendments thereto, as published in Part II of the *Canada Gazette*, should be consulted for the purpose of officially interpreting and applying the regulations.

[illegible]

305 — HELIPORTS

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PART III - AERODROMES, AIRPORTS AND HELIPORTS

SUBPART 5 — HELIPORTS

(amended 2007/06/30)

DIVISION I — GENERAL

Interpretation

305.01 The following definitions apply in this Subpart.

“applicable heliport standard” means the standard that is applicable to a heliport or to a part of it, or to its administration and operation, as determined under subsection 305.17(1). (*norme sur les héliports applicable*)

“FATO” means a final approach and take-off area, which consists of a defined area over which the final phase of a helicopter approach manoeuvre to hover or land is completed and from which the take-off manoeuvre is commenced. (*FATO*)

“heliport certificate” means a certificate issued under section 305.08, 305.11 or 305.12. (*certificat d’héliport*)

“heliport closed marking” means a marking that meets the requirements of subsection 305.41(1). (*marque de zone fermée d’héliport*)

“heliport operations manual” or “HOM” means the manual referred to in sections 305.53 to 305.57 and includes any amendments to the manual that are approved pursuant to subsection 305.08(4). (*manuel d’exploitation d’héliport ou MEH*)

“standard 621.19” means *Standards Obstruction Markings of the General Operating and Flight Rules Standards*, as amended from time to time, published by Transport Canada. (*norme 621.19*)

“TLOF” means a touchdown and lift off area, which consists of a load-bearing area on which a helicopter may touch down or lift off. (*TLOF*)

Application

305.02 (1) Subject to subsection (2), this Subpart applies in respect of the operation of a heliport

(a) that is located within a built-up area of a city or town;

(b) that is used by an air operator providing a scheduled air service for the purpose of transporting persons;

(c) for which an instrument approach procedure to precision limits is established in accordance with the applicable heliport standard; or

(d) that is any other heliport in respect of which the issuance of a heliport certificate would be in the public interest and would further the safe operation of the heliport.

(2) This Subpart does not apply in respect of a military heliport.

Requirement to Hold a Heliport Certificate

305.03 No person shall operate a heliport referred to in subsection 305.02(1) unless a heliport certificate is issued in respect of the heliport and the person complies with the requirements of the heliport certificate and operates the heliport in accordance with the heliport operations manual.

Eligibility to Hold a Heliport Certificate

305.04 A person is eligible to hold a heliport certificate if they are

- (a) a citizen of Canada;
- (b) a permanent resident of Canada;
- (c) a corporation incorporated under the territorial, provincial or federal laws of Canada; or
- (d) a municipal, provincial or federal entity.

Management Agreement

305.05 No heliport operator shall manage another heliport operator's heliport unless they are authorized to do so in the heliport operations manual of the other operator's heliport.

305.06 and 305.07 Reserved

DIVISION II — CERTIFICATION

Application and Issuance of a Heliport Certificate

305.08 (1) An applicant for a heliport certificate shall

- (a) submit to the Minister the application;
- (b) ensure that the heliport meets the certification requirements and criteria set out in these Regulations and the applicable heliport standard;
- (c) submit to the Minister for approval their copy of a proposed heliport operations manual that describes the manner in which the heliport meets the requirements and criteria referred to in paragraph (b) and the physical specifications of the heliport; and
- (d) submit to the Minister proof that the applicant has consulted with the local government authority relating to the proposed heliport and adjacent land in accordance with the requirements of the applicable heliport standard.

(2) Subject to subsection 6.71(1) of the Act, the Minister shall, after receipt of an application for a heliport certificate, issue the certificate if the applicant demonstrates to the Minister the ability

- (a) to maintain an organizational structure in accordance with the requirements of their heliport operations manual;
- (b) to maintain an operation of aviation activities at the heliport that ensures the operational requirements set out in their heliport operations manual are met; and
- (c) to conduct operations at the heliport in a safe manner.

(3) For the purposes of subsection (2), an applicant shall have

- (a) an organization capable of exercising heliport operational management; and
- (b) operational support services and equipment that are in accordance with their heliport operations manual.

(4) If a heliport does not meet a requirement set out in the applicable heliport standard, the Minister may specify replacement conditions to be included in the heliport operations manual that relate to the same subject matter as the unmet requirement and that are necessary to achieve a level of safety that is equivalent to the one established by the requirement to protect the public interest and to ensure aviation safety.

Contents of a Heliport Certificate

305.09 A heliport certificate shall contain the following information:

- (a) the certificate number;
- (b) the name of the heliport;
- (c) the name of the heliport operator;
- (d) the signature of the Minister; and
- (e) the date of issue.

General Conditions of a Heliport Certificate

305.10 (1) The holder of a heliport certificate shall ensure that the heliport meets the applicable certification criteria set out in these Regulations and in the applicable heliport standard.

(2) The holder of a heliport certificate shall

- (a) maintain the organizational structure referred to in paragraph 305.08(2)(a); and
- (b) notify the Minister within 10 working days after any change in its legal name, trade name or managerial personnel under paragraph 305.08(3)(a).

(3) The holder of a heliport certificate shall conduct operations at the heliport in a safe manner.

Transfer of a Heliport Certificate

305.11 The Minister shall approve the transfer of a heliport certificate to a transferee and issue an amended heliport certificate only if

- (a) the current holder of the heliport certificate notifies the Minister in writing at least 14 days before ceasing to operate the heliport that they will cease to operate the heliport as of the date specified in the notice and of the name of the transferee;
- (b) the transferee applies in writing to the Minister for the issuance of a new heliport certificate and includes a copy of the transfer notice referred to in paragraph (a) within 14 days before the current holder ceases to operate the heliport; and
- (c) the requirements set out in section 305.10 are met on the day of transfer and there are no indications that they will not continue to be met.

Interim Heliport Certificate

305.12 (1) The Minister may issue an interim heliport certificate in writing to the following persons authorizing them to operate a heliport:

- (a) an applicant referred to in section 305.08, until the day of issuance of the heliport certificate that will be issued to the applicant as soon as the application procedure in respect of the issuance is completed; and
- (b) a transferee referred to in section 305.11, until the day of issuance of an amended heliport certificate in respect of the heliport that will be issued to the transferee as soon as the application procedure in respect of the transfer is completed.

(2) An interim heliport certificate expires on the earlier of

- (a) the day on which the heliport certificate or the amended heliport certificate is issued, and
- (b) the day specified in the interim heliport certificate as the day on which it will expire.

(3) Except for sections 305.08 and 305.09, this Subpart applies in respect of an interim heliport certificate in the same manner as it applies in respect of a heliport certificate.

305.13 to 305.16 Reserved

DIVISION III — OPERATOR OF A HELIPORT

Obligations of an Operator

305.17 (1) The operator of a heliport shall comply with the requirements

- (a) with respect to the heliport as a whole, the following heliport standards as identified in their heliport operations manual:
 - (i) unless the operator has voluntarily adopted the standard referred to in subparagraph (ii), for heliports in respect of which a heliport certificate was issued

before the coming into force of these Regulations, the *Heliport and Helideck Standards and Recommended Practices*, TP 2586E, and

(ii) for any other heliport, standard 325 — *Heliport Standards*, as they read on the day on which the heliport certificate was issued;

(b) with respect to any procedure pertaining to the administration, heliport traffic management, safety and security, emergency response and heliport maintenance, standard 325 — *Heliport Standards*; and

(c) with respect to any replacement or improvement to the heliport since the day on which the heliport certificate was issued, the following heliport standards:

(i) for parts or facilities of the heliport that returned to service before the coming into force of these Regulations, the most recent applicable heliport standard for the heliport as identified in their heliport operations manual, and

(ii) for parts or facilities of the heliport returned to service on or after the day of coming into force of these Regulations, standard 325 — *Heliport Standards*, as they read on the day on which the part or facility was returned to service.

(2) The operator of a heliport shall

(a) review each aeronautical information publication as soon as possible after its issuance and immediately after the review notify the Minister and the provider of aeronautical information services of any inaccurate information contained in the publication that pertains to the heliport that they operate;

(b) notify the provider of an aeronautical information publication before any planned change to the heliport, the heliport facilities or the level of service at the heliport that would affect the accuracy of information contained in the publication;

(c) ensure that the notification is in accordance with the processes and procedures established by the provider of the aeronautical information services to meet the standards referred to in Part VIII;

(d) notify the provider of aeronautical information services of all changes to operational information published in the aeronautical information publications; and

(e) notify the Minister in writing of any change in heliport operations within 14 days after the day of the change and take the following measures, as applicable:

(i) if a hazardous condition has been identified, issue a NOTAM identifying the hazard, and

(ii) if a change in heliport operations constitutes a change to the provisions identified in the heliport certificate, ensure that the change has been approved by the Minister.

(3) Subject to subsection (4), the operator of a heliport shall give to the Minister, and cause to be received at the appropriate air traffic control unit or flight service station, immediate notice of any of the following circumstances of which the operator has knowledge:

- (a) any projection by an object through an obstacle limitation surface relating to the heliport;
- (b) the existence of any obstruction or hazardous condition affecting aviation safety at or in the vicinity of the heliport;
- (c) any reduction in the level of services at the heliport that are set out in an aeronautical information publication as being provided at the heliport;
- (d) the closure of any part of the manoeuvring area of the heliport; and
- (e) any other conditions that could be hazardous to aviation safety at the heliport and against which precautions are warranted.

(4) Where it is not feasible for the operator of a heliport to cause notice of a circumstance referred to in subsection (3) to be received at the appropriate air traffic control unit or flight service station, the operator of the heliport shall give immediate notice directly to the pilots who may be affected by that circumstance.

(5) Prior to the use of a heliport for helicopter operations, the operator of the heliport shall remove from the surface of the heliport or the surrounding ground over which they have control, any vehicle or other obstruction that is hazardous to aviation safety.

Heliport Operations Manual

305.18 (1) The operator of a heliport shall, as soon as possible after the issuance of the heliport certificate,

(a) provide the Minister with their copy of the heliport operations manual as approved under paragraph 305.10(b) and any amendments to the manual approved under paragraph (2)(b); and

(b) distribute copies of the applicable portions and amendments to the applicable persons and institutions referred to in the manual.

(2) The operator of the heliport shall

(a) keep their heliport operations manual up to date; and

(b) submit to the Minister for approval any proposed amendment to their heliport operations manual.

DIVISION IV — GENERAL CERTIFICATION REQUIREMENTS

Heliport Classification

305.19 The operator of a heliport shall determine the heliport classification in accordance with standard 325 — *Heliport Standards* in respect of

- (a) the classification of non-instrument heliports; and
- (b) performance requirements of helicopters that are expected to use the heliport.

Operational Limits

305.20 The operator of a heliport shall determine, and record in their heliport operations manual, the heliport operational limitations in accordance with the applicable heliport standard with respect to

- (a) load bearing strength of the TLOF when required by the applicable heliport standard;
- (b) the maximum helicopter overall length for which each operational area at a heliport is certified; and
- (c) the heliport classification as specified in paragraph 305.19(a) and category as determined in accordance with the applicable heliport standard.

Units of Measurement

305.21 Unless otherwise specified in the applicable heliport standard, units of measurement used in this Division and in the heliport operations manual shall use the following rounding rules and specified measurement units:

- (a) elevations to the nearest foot;
- (b) linear dimensions to the nearest metre;
- (c) geographic coordinates in latitude and longitude to the nearest second;
- (d) geographic coordinates measured in accordance with North American Datum 1983;
- (e) bearings to the nearest degree;
- (f) water depths, measured in the specified unit expressed, to the nearest foot or metre; and
- (g) range of tides or water levels, measured in the specified unit expressed, to the nearest foot or metre.

305.22 to 305.24 Reserved

DIVISION V — PHYSICAL CHARACTERISTICS

305.25 (1) The operator of a heliport shall ensure that

- (a) the heliport has at least one FATO; and
- (b) no FATO is used to accommodate the manoeuvres of more than one helicopter at a time.

(2) Subject to subsections (3) to (6), the operator of a heliport shall ensure that the heliport meets the requirements set out in the applicable heliport standard in respect of

- (a) FATOs;
- (b) safety areas;
- (c) rejected take-off areas, if applicable;
- (d) helicopter clearways, if applicable;
- (e) TLOFs, if applicable;
- (f) taxiways as follows, if applicable:
 - (i) air taxiways,
 - (ii) helicopter ground taxiways,
 - (iii) helicopter ground taxiway shoulders, and
 - (iv) helicopter ground taxiway strips;
- (g) aprons, if applicable; and
- (h) helicopter parking positions, if applicable.

(3) The operator of a surface-level heliport shall ensure that the heliport meets the special requirements for a surface-level heliport set out in the applicable heliport standard in respect of

- (a) TLOFs;
- (b) taxiways; and
- (c) aprons.

(4) The operator of an elevated or rooftop heliport shall ensure that the heliport meets the special requirements for an elevated or rooftop heliport set out in the applicable heliport standard in respect of

- (a) TLOFs;
- (b) safety nets; and
- (c) helicopter parking positions.

(5) The operator of a heliport located on an aerodrome primarily designed to serve aeroplanes shall ensure that the heliport meets the special requirements for a heliport located on an aerodrome set out in the applicable heliport standard in respect of

- (a) application of additional standards regarding aerodromes;
- (b) FATOs;
- (c) ground taxiway separation distances;
- (d) taxi-holding positions;
- (e) aprons; and
- (f) helicopter parking positions.

(6) The operator of an H1 heliport shall ensure that the heliport meets the special requirements for an H1 heliport set out in the applicable heliport standard in respect of FATOs and TLOFs.

305.26 to 305.28 Reserved

DIVISION VI — OBSTACLE LIMITATION SURFACES

305.29 (1) Subject to subsections (2) to (4), the operator of a heliport shall establish the following obstacle limitation surfaces in accordance with the applicable heliport standard for a non-instrument, non-precision or precision FATO and meet the special requirements for the surfaces and any obstacles that may affect them, set out in the applicable heliport standard:

- (a) approach surfaces;
- (b) take-off surfaces; and
- (c) transitional surfaces.

(2) The operator of an H1 heliport shall ensure that the heliport meets the special requirements for obstacle limitation surfaces for non-instrument FATOs set out in the applicable heliport standard for an H1 heliport in respect of approach or take-off surfaces.

(3) The operator of an H1 heliport shall conduct a survey of the approach and take-off surface to determine obstacle information and submit a copy to the Minister at the time of the initial heliport certification and after that at least once every five years, unless no new obstacle has been established in the approach and take-off surface during the five-year period and a report to that effect is made to the Minister.

(4) The operator of an H2 heliport shall ensure that the heliport meets the special requirements for obstacle limitation surfaces for non-instrument FATOs set out in the applicable heliport standard for an H2 heliport in respect of approach or take-off surfaces.

(5) The operator of a heliport equipped with an instrument FATO shall ensure that the heliport meets the special requirements for obstacle limitation surfaces for instrument FATOs set out in the applicable heliport standard.

305.30 Reserved

DIVISION VII — VISUAL AIDS FOR AIR NAVIGATION

305.31 (1) The operator of a heliport shall equip the heliport with at least one wind direction indicator and meet the requirements for wind direction indicators set out in the applicable heliport standard.

(2) The operator of a heliport shall meet the requirements for heliport markings set out in the applicable heliport standard in respect of

- (a) heliport identification marking;
- (b) in the case of a hospital heliport, hospital heliport identification marking;
- (c) an aiming point marking for each FATO;
- (d) FATO edge marking;
- (e) a FATO designation marking for each FATO;
- (f) a FATO centre line marking for each FATO;
- (g) approach and take-off direction indicator marking;
- (h) a TLOF edge marking for each TLOF;
- (i) the maximum allowable helicopter weight marking for each TLOF;
- (j) the following taxiway markings:
 - (i) taxiway centre line marking,
 - (ii) taxiway holding position marking, and
 - (iii) taxiway edge marking;
- (k) where the apron edge is not easily identifiable, an apron edge marking;
- (l) where a helicopter parking position is provided, a helicopter parking position marking;
- (m) where a helicopter parking position is provided and helicopters are required to have a specific alignment on the parking position, an alignment marking;
- (n) where a helicopter parking position is not large enough for the largest helicopter for which the heliport is designed or where the size of the parking position is limited by the minimum separation requirement to an obstacle or an adjacent parking position, a helicopter parking position information marking; and

(o) where passengers are required to walk on a specific path on an apron between a helicopter parking position and the passenger terminal, an apron passenger path marking.

305.32 Reserved

DIVISION VIII — LIGHTS

305.33 (1) The operator of a heliport shall extinguish, screen or otherwise modify a ground light, other than an aeronautical ground light, that may cause confusion to heliport users within the heliport boundary or other spaces within the boundaries of the control of the heliport operator.

(2) The operator of a heliport shall meet the requirements set out in the applicable heliport standard in respect of the installation of

- (a) elevated approach lights;
- (b) elevated lights for operational areas;
- (c) inset lights;
- (d) light intensity and control; and
- (e) a heliport beacon.

(3) The operator of a heliport equipped with a non-instrument FATO that is certified to be available for use at night shall provide an approach and take-off direction light that meets the requirements set out in the applicable heliport standard where

- (a) at least one approach and departure path is required to be indicated to pilots; or
- (b) obstacle clearance, noise abatement or air traffic control procedures require that a specific direction be flown.

(4) The operator of a heliport shall provide a visual approach slope indicator system that meets the requirements set out in the applicable heliport standard where

- (a) there are inadequate visual references;
- (b) obstacle clearance, noise abatement or air traffic control procedures require that a particular slope be flown; or
- (c) the surrounding terrain may produce misleading information.

(5) Where a heliport approach path indicator or an abbreviated heliport approach path indicator is provided at a heliport, the visual approach slope indicator system shall meet the general design requirements and specific requirements set out in the applicable heliport standard.

(6) The operator of a heliport shall monitor the visual approach slope indicator system provided at a heliport in accordance with the requirements of the applicable heliport standard.

(7) Where a visual approach slope indicator system is provided, the operator of a heliport shall provide, when required, an obstacle protection surface (OPS) in accordance with the applicable heliport standard.

(8) The operator of a heliport shall provide FATO lights that meet the requirements of the applicable heliport standard for

- (a) a surface-level heliport unless the FATO and the TLOF are coincidental or the extent of the FATO is self-evident;
- (b) an instrument FATO; and
- (c) where an illuminated TLOF is not provided, a FATO that is certified to be available for use at night unless the FATO edge marking is clearly visible to heliport users by means of external floodlighting.

(9) Where a TLOF is not located within a FATO that is certified to be available for use at night, the operator of a heliport shall ensure the aiming point is illuminated in accordance with the applicable heliport standard.

(10) The operator of a heliport shall provide TLOF lights consisting of perimeter lights, floodlights or luminescent panels for a TLOF that is certified to be available for use at night and, if the perimeter of the TLOF is not coincidental with that of the FATO, in accordance with the requirements of the applicable heliport standard.

(11) Where a rejected take-off area is established for a surface-level heliport that is certified to be available for use at night, the operator of a heliport shall provide in that area rejected take-off area lights in accordance with the requirements of the applicable heliport standard.

(12) The operator of a heliport shall provide taxiway centre line lights in accordance with the requirements of the applicable heliport standard for a taxiway that is used in runway visual range conditions of less than 1200 feet or in conditions of ground visibility of less than one-quarter statute mile.

(13) The operator of a heliport shall provide taxiway edge lights in accordance with the requirements of the applicable heliport standard for a taxiway that is available at a heliport that is certified to be available for use at night and that is not provided with taxiway centre line lights.

(14) Where an apron is available at a heliport that is certified to be available for use at night, the operator of the heliport shall provide apron edge lights, retro-reflective edge markers or apron floodlighting in accordance with the requirements of the applicable heliport standard.

305.34 Reserved

DIVISION IX — MARKERS

305.35 (1) The operator of a heliport shall ensure that the markers installed at the heliport are either flush mounted or lightweight and frangibly mounted and in accordance with the requirements of the applicable heliport standard.

(2) The operator of a heliport shall provide FATO markers where

(a) a FATO edge marking is not provided; and

(b) where the extent of the FATO and the adjacent ground is not self-evident.

(3) The operator of a heliport shall provide ground taxiway edge markers in accordance with the requirements of the applicable heliport standard if the helicopters must travel along a ground taxiway to or from a FATO to an apron, unless

(a) the edges of the taxiway are self-evident;

(b) taxiway centre line lights are provided;

(c) taxiway edge lights are provided; or

(d) taxiway centre line markers are provided.

(4) The operator of a heliport shall provide air taxiway markers if the helicopters must travel by air to or from a FATO to an apron via a specific corridor in accordance with the applicable heliport standard.

305.36 Reserved

DIVISION X — VISUAL AIDS FOR DENOTING OBSTACLES

Requirements for Marking or Lighting Obstacles

305.37 (1) Subject to subsection (4), the operator of a heliport shall ensure that obstacles, other than aircraft, on the movement, manoeuvring and safety areas of the heliport are marked and lighted as follows:

(a) vehicles and other mobile obstacles on the movement area shall be marked so as to be visible to pilots during aircraft operations;

(b) where the heliport is used at night or in conditions of low visibility, vehicles and other mobile obstacles on the manoeuvring area shall be lighted;

(c) elevated aeronautical ground lights on the movement area shall be marked so as to be conspicuous by day; and

(d) in accordance with the applicable heliport standard, a fixed obstacles located on the safety area shall be

(i) marked, and

(ii) where the heliport is certified to be available for use at night, lighted.

(2) The operator of a heliport shall mark and, if the heliport is certified to be available for use at night, light fixed obstacles located within the area identified in the applicable heliport standard, except where the obstacle is

(a) shielded by another fixed obstacle that is marked in accordance with **Standard 621**; **(amended 2011/12/31)**

(b) conspicuous;

(c) identified in an aeronautical evaluation as being sufficiently lit by ambient light at night;
or

(d) not more than 150 m above the adjacent ground and lighted in accordance with **Standard 621**; **(amended 2011/12/31)**

(3) The operator of a heliport where a fixed obstacle that is more than 150 m above the surrounding ground is located within the area identified in the applicable heliport standard shall

(a) light the obstacle by high-intensity obstacle lights by day in accordance with **Standard 621**; or **(amended 2011/12/31)**

(b) mark the obstacle in accordance with the applicable heliport standard.

(4) The operator of a heliport shall mark an elevated obstacle on the helicopter ground taxiway strips and, where the heliport is certified to be available for use at night, light the obstacle.

(5) The operator of a heliport shall mark an obstacle referred to in subsection (2) except if an aeronautical evaluation determines that

(a) the obstacle is conspicuous because of its shape, dimensions or colour; or

(b) retro-reflective tape or markers are sufficiently conspicuous to be used instead of lights.

Marking Obstacles

305.38 (1) The operator of a heliport shall ensure that a fixed obstacle or a mobile obstacle on the heliport is marked in accordance with the requirements of the applicable heliport standard.

(2) Obstacles required to be marked shall, in accordance with **Standard 621**, be **(amended 2011/12/31)**

(a) coloured;

(b) marked by markers; or

(c) marked by flags.

Lighting Obstacles

305.39 (1) The operator of a heliport shall light a fixed obstacle in accordance with Standard 621.
(amended 2011/12/31)

(2) The operator of a heliport shall ensure that maintenance and service vehicles in use display lights in accordance with the requirements of the applicable heliport standard.

(3) The operator of a heliport shall ensure that emergency vehicles in use that are required to be lighted display the lights specified in the applicable heliport standard.

305.40 Reserved

DIVISION XI — VISUAL AIDS FOR DENOTING RESTRICTED USE AREAS

305.41 (1) When a FATO, helicopter parking position, taxiway, or any part of those areas is permanently closed, the operator of a heliport shall display a closed marking on the area that meets the requirements of the applicable heliport standard.

(2) When an area of a heliport is temporarily closed or an area is snow-covered, the heliport operator shall ensure that

(a) notice of the closure is

(i) included in the *Canada Flight Supplement*, or

(ii) reported in a NOTAM; or

(b) a closed marking referred to in subsection (1) is displayed on the affected area.

(3) The operator of a heliport shall ensure that non-load-bearing surfaces adjacent to a FATO, helicopter parking position or taxiway that cannot be visually distinguished from load-bearing surfaces are marked as set out in the applicable heliport standard.

(4) The operator of a heliport shall ensure that unserviceability markers consisting of flags, cones or marker boards that meet the requirements of the applicable heliport standard and are positioned in conformity with that standard are displayed on any part of a taxiway or apron that is unfit for the movement of aircraft.

(5) The operator of a heliport shall ensure that unserviceability lights that meet the requirements of the applicable heliport standard are displayed in conformity with that standard wherever any portion of a taxiway or apron at a heliport that is certified to be available for use at night is unfit for the movement of aircraft.

305.42 Reserved

DIVISION XII — EQUIPMENT AND INSTALLATIONS

305.43 (1) The operator of a heliport shall ensure that the lights of a visual approach slope indicator system, when required and installed as specified in subsection 305.33(4), are aligned by means of

- (a) a daily inspection of alignment and, if necessary, a correction of any misalignment of more than 3 minutes of arc; or
- (b) an automatic shut-off switch installed in the system.

(2) The operator of a heliport shall ensure that a fence or other barrier is installed on the heliport and that the fence or other barrier meets the requirements of the applicable heliport standard.

(3) The operator of a heliport or a person under the operator's authority shall direct any vehicle that is operated on an apron or manoeuvring area of the heliport or, in the case of a vehicle in a manoeuvring area, shall ensure that the vehicle's operation is under the direction of the air traffic services unit or the heliport operator or a person working under their authority, in accordance with the requirements of the applicable heliport standard.

(4) The operator of the heliport shall ensure that the drivers of vehicles on an apron or manoeuvring area are trained for the tasks to be performed and that they know they must comply with instructions issued by the air traffic services unit or the heliport operator or a person working under their authority.

(5) The operator of a heliport shall ensure that equipment required for air navigation purposes that is located on a safety area, a taxiway strip or within the separation distances specified in the applicable heliport standard is located, constructed and installed in accordance with that standard.

(6) The operator of a heliport shall ensure that visual aids, precision approach FATO lights and centre line lights on a taxiway are maintained in accordance with the applicable heliport standard.

305.44 Reserved

DIVISION XIII — EMERGENCY AND OTHER SERVICES

Emergency Response Plan

305.45 (1) The operator of a heliport shall develop and have available a heliport emergency response plan at the heliport.

(2) The operator of a heliport shall identify in the emergency response plan those organizations that are capable of providing assistance in responding to an emergency at the heliport or in its vicinity.

(3) The operator of a heliport shall specify in the emergency response plan the procedures to be followed for

- (a) an aircraft crash or other accident within the heliport perimeter;
- (b) an aircraft crash outside the heliport perimeter; and
- (c) any medical emergency.

(4) Where an approach and departure path at a heliport is located over water, the operator of the heliport shall specify in the emergency response plan

- (a) the organization that is responsible for co-ordinating rescue in the event of an aircraft ditching; and
- (b) how to contact that organization.

(5) The operator of a heliport shall include in the emergency response plan the information required in accordance with standard 325 - *Heliport Standards*.

(6) The operator of a heliport shall consult with all organizations identified in the emergency response plan concerning their role in it.

(7) The operator of a heliport shall annually review the emergency response plan and update the information.

(8) The operator of a heliport that provides a scheduled service for the transport of passengers shall carry out a test of the emergency response plan at intervals not exceeding three years.

Fire Protection Services

305.46 (1) The operator of a surface-level heliport or of a heliport over a parking garage or on an elevated structure that is not an occupied building shall ensure that fire protection services are provided at the heliport and that those services and the fire resistance of the structure meets the requirements of the applicable heliport standard.

(2) The operator of a rooftop heliport shall ensure that fire protection services are provided at the heliport and that those services and the fire resistance of the structure meets the requirements of the applicable heliport standard.

Extinguishing Agents and Equipment

305.47 The operator of a heliport shall

- (a) determine the requirements for extinguishing agents and equipment used for fire protection at the heliport based on the longest dimension helicopter for which the heliport has been certified;
- (b) ensure that the agents and equipment are in accordance with the applicable heliport standard; and
- (c) provide a fire extinguisher or fire fighting system that is protected from freezing.

Safety Personnel for Rooftop Heliport

305.48 The operator of a rooftop heliport shall ensure that a minimum of one trained safety person is in attendance during helicopter operations.

Training for Safety Personnel

305.49 The operator of a heliport shall provide initial and refresher training to safety personnel provided at the heliport in accordance with the applicable heliport standard.

305.50 to 305.52 Reserved

**DIVISION XIV — HELIPORT OPERATIONS
MANUAL**

General

305.53 (1) The provisions of this Subpart that specify the procedures for making a heliport operations manual also apply in respect of any amendment to the manual.

(2) The operator of a heliport shall set out in the heliport operations manual

(a) the heliport certification standards that were met for issuance of the heliport certificate; and

(b) the level and types of services to be provided by the operator of the heliport.

(3) The operator of a heliport shall operate the heliport in accordance with the heliport operations manual.

Heliport Data

305.54 (1) The operator of a heliport shall determine and record in the heliport operations manual, the following data in respect of the heliport in accordance with the applicable heliport standard:

(a) geographic coordinates for

(i) the heliport reference point if

(A) the heliport is not located on an aerodrome that already has a reference point, and

(B) the heliport operator intends to have a zoning regulation made under the *Aeronautics Act*,

(ii) the heliport geometric centre,

(iii) the FATO coordinates,

(iv) the heliport elevation,

(v) the heliport magnetic variation, and

(vi) where installed, the electronic navigation aids; and

(b) information in respect of

- (i) the heliport type,
- (ii) the dimensions, slope and surface type of all TLOFs,
- (iii) the length, width, slope, category, surface type and designation number of all FATOs,
- (iv) the length, width and surface type of all safety areas,
- (v) the designation, width and surface type of helicopter ground and air taxiways,
- (vi) the apron surface type and description of helicopter parking positions, and
- (vii) the declared distances for
 - (A) take-off distance available,
 - (B) rejected take-off distance available, and
 - (C) landing distance available.

(2) The operator of a heliport shall ensure that a heliport geometric centre is redetermined and recorded in the manual if the physical characteristics of the heliport change because

- (a) an existing FATO is closed;
- (b) the boundaries of an existing FATO are altered; or
- (c) a new FATO is constructed.

(3) The operator of a heliport shall report the heliport data specified in paragraph (1)(a) to the Aeronautical Information Services of NAV Canada within 14 days after the Minister's approval of certification.

Administration

305.55 The operator of a heliport shall ensure that the heliport operations manual contains

- (a) a table of contents; and
- (b) information relating to the administration of the heliport including but not limited to
 - (i) a copy of any amendments to the manual and the page numbers affected,
 - (ii) a list of holders of copies of the manual or of portions of it,
 - (iii) a description of a procedure for amending the manual,
 - (iv) a description of the organizational structure of the heliport management,
 - (v) a description of the operational procedures of the heliport,
 - (vi) a declaration, signed and dated by the operator, in which they agree to fulfill the obligations of the operator referred to in section 305.17,

- (vii) a statement, signed and dated by the operator, certifying that their heliport operations manual is complete and accurate, and that the operator agrees to comply with all of the conditions and specifications set out in it,
- (viii) a statement, signed by the Minister, that the heliport operations manual and any amendments to it have been approved,
- (ix) a copy of any agreement or memorandum of understanding that affects the operation of the heliport, including the provision of emergency services at the heliport, and
- (x) the information necessary to verify that the heliport meets the applicable heliport standard.

305.56 The operator of a heliport shall ensure that their heliport operations manual sets out the information specified in subsection 305.25(1).

305.57 The operator of a heliport shall ensure that the following are provided in accordance with the applicable heliport standard and recorded in their heliport operations manual:

- (a) the applicable physical characteristics set out in section 305.25;
- (b) the obstacle limitation surfaces set out in section 305.29;
- (c) the visual aids for navigation set out in section 305.31;
- (d) the lighting or marking of obstacles set out in section 305.37;
- (e) the visual aids utilized for denoting restricted use areas set out in section 305.41;
- (f) the equipment and installations set out in section 305.43; and
- (g) the emergency response plan set out in section 305.45.

305.58 to 305.67 Reserved



CARs

CANADIAN AVIATION REGULATIONS

PART III - AERODROMES AND AIRPORTS

SUBPART 8 - AIRCRAFT EMERGENCY INTERVENTION AT AIRPORTS

308

Repealed [2006/06/30]

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CANADIAN AVIATION REGULATIONS

PART III – AERODROMES, AIRPORTS AND HELIPORTS

STANDARD 322 - AIRPORTS

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STANDARD 322 - AIRPORTS

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PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

STANDARD 322 - AIRPORTS

(amended 2006/05/05)

DIVISION III - AIRPORT WILDLIFE PLANNING AND MANAGEMENT

322.302 *Application*

(1) The wildlife hazards referred to in paragraph 302.302(1)(e), subsection 302.304(3), subsection 302.305(6) and paragraph 302.306(a) of the *Canadian Aviation Regulations* include, in the following descending order of priority with respect to risk, the following hazards:

- (a) deer;
- (b) geese;
- (c) gulls;
- (d) hawks;
- (e) ducks;
- (f) coyotes;
- (g) owls;
- (h) rock doves and pigeons;
- (i) bald and golden eagles;
- (j) sandhill cranes;
- (k) sparrows and snow buntings;
- (l) shorebirds;
- (m) blackbirds and starlings;
- (n) crows and ravens;
- (o) swallows;
- (p) mourning doves;
- (q) herons;
- (r) turkey vultures;

- (s) American kestrels;
- (t) wild turkeys; and
- (u) cormorants.

(2) The list of wildlife hazards referred to subsection (1) is not intended to be exhaustive.

Information Note:

The above list ranks wildlife hazards in descending order from the most hazardous to the least hazardous with respect to risk and as such, identifies the hazards that are of primary concern for the operator. All hazards contained in this list have the potential to cause an incident outlined in paragraphs 302.302(1)(d) and 302.305(6)(b) of the Canadian Aviation Regulations.

322.303 - Reserved

322.304 Risk Analysis

(1) The following constitutes the information to be collected by the operator of an airport pursuant to subsection 302.304(1) of the *Canadian Aviation Regulations*:

- (a) wildlife strike data;

Information Note:

When reporting a wildlife strike, the Transport Canada form titled Bird/Wildlife Strike Report bearing the number #51-0272 may be used. Any information that the operator of an airport has that is outlined on that form should be included.

- (b) aircraft movement statistics;
- (c) aircraft types; and
- (d) ecological studies and wildlife inventories.

Information Note:

An Airport Wildlife Management Plan template may be used to assist operators with the layout of risk assessments and management plans. This document, entitled Airport Wildlife Management Plan Template (2004), can be accessed on-line at <http://www.tc.gc.ca/CivilAviation/Aerodrome/WildlifeControl/menu.htm>, or can be obtained by writing to Transport Canada, Aerodrome and Air Navigation Branch, Wildlife Control Specialists, 330 Sparks Street, Place de Ville, Tower C, Ottawa Ontario, K1A 0N8.

322.305 Airport Wildlife Management Plan

(1) Pursuant to section 302.305 of the *Canadian Aviation Regulations*, the operator shall, in developing an airport wildlife management plan, use for guidance the following documents, as appropriate:

- (a) *Land Use In The Vicinity of Airports* (TP1247),
- (b) *Wildlife Control Procedures Manual* (TP11500),
- (c) *Evaluation of the Efficacy of Various Deer Exclusion Devices and Deterrent Techniques for use at Airports*,
- (d) *Sharing the Skies-An Aviation Industry Guide to the Management of Wildlife Hazards* (TP 13549), and
- (e) *Evaluation of the Efficacy of Products and Techniques for Airport Bird Control*; and

Information Note:

The documents listed in paragraph (a) can be accessed on-line at <http://www.tc.gc.ca/CivilAviation/Aerodrome/WildlifeControl/menu.htm>, or can be obtained by writing to Transport Canada, Aerodrome and Air Navigation Branch, Wildlife Control Specialists, 330 Sparks Street, Place de Ville, Tower C, Ottawa Ontario K1A 0N8.

(2) Pursuant to subsection 302.305 of the *Canadian Aviation Regulations*, the operator shall submit the airport wildlife management plan in the form of a manual and in duplicate to the Minister.

322.306 Content of Airport Wildlife Management Plan

Pursuant to paragraph 302.306(c) of the *Canadian Aviation Regulations*, the requirements that shall be contained in an airport wildlife management plan are:

- (a) the acquisition of the appropriate firearm certificates and permits;
- (b) the acquisition of wildlife control permits from federal, provincial, and local agencies;
- (c) the identification of the species of any wildlife struck by aircraft;

Information Note:

In order to correctly identify the species of wildlife struck by aircraft as outlined in paragraph (c), place the feathers and other material in a clean plastic zip-lock bag, and send to: Feather Lab, Smithsonian Institution, Division of Birds, NHB MRC 116, PO Box 37012, Washington, D.C. 20013-7012.

- (d) the regular maintenance of wildlife management logs indicating management activities, environmental changes; wildlife interactions and animal remains identified by species; and

(e) the evaluation of habitats, land uses and food sources, located at or near the airport, that might attract wildlife which may affect the safe operation of the airport including, if needed, arrangements for assessments, studies and monitoring.

322.307 Training

Pursuant to section 302.307 of the *Canadian Aviation Regulations*, the following constitutes the matters in which the operator shall provide training to persons having duties in respect of the airport wildlife management plan:

- (a) nature and extent of the wildlife management problem;
- (b) regulations, standards and guidance material related to airport wildlife management programs;
- (c) bird ecology and biology;
- (d) bird identification, including the use of field guides;
- (e) mammal ecology and biology;
- (f) mammal identification, including the use of field guides;
- (g) any matter covered in the *Wildlife Control Procedures Manual* (TP 11500);
- (h) any matter covered in the *Sharing the Skies-An Aviation Industry Guide to the Management of Wildlife Hazards* document (TP 13549);
- (i) rare and endangered species and species of special concern, including related regulations and policies;
- (j) habitat management;
- (k) off-airport land use issues;
- (l) active wildlife control measures;
- (m) wildlife removal techniques;
- (n) firearm safety;
- (o) wildlife management planning; and
- (p) development of awareness programs.

Information Note:

The airport operator can subcontract a third party to deliver the training as required pursuant to paragraph 302.307(1)(a) of the *Canadian Aviation Regulations*.

322.308 *Communication and Alerting Procedure*

Pursuant to section 302.308 of the *Canadian Aviation Regulations*, the communication and alerting procedure to be used in order to alert pilots as soon as possible of the wildlife hazards at the airport and associated risks may include:

- (a) where the airport has air traffic services (ATS), bilateral radio communications or broadcast of airport advisories;
- (b) if an immediate alert is required, direct radio contact can be used through such means as a community airport radio station or universal communications (UNICOM); or
- (c) publication of a NOTAM in respect of the airport, whether in combination or not with the procedure referred to in paragraph (a) or (b).



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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS

***STANDARD 323 - AIRCRAFT FIRE FIGHTING AT
AIRPORTS AND AERODROMES***

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Foreword

These *Aerodrome and Airport Standards respecting Aircraft Fire Fighting at Airports and Aerodromes* outline the requirements for complying with Subpart 3 of the *Canadian Aviation Regulations*.

For ease of cross-reference, the divisions and numbers of the standards are assigned to correspond to the regulations, therefore, Standard 323.03 would reflect a standard required by Section 303.03 of the *Canadian Aviation Regulations*.

An asterisk (*) indicates where there will be *Advisory Documents* complementing the *Aerodrome and Airport Standards*.

PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

STANDARD 323 - AIRCRAFT FIRE FIGHTING AT AIRPORTS AND AERODROMES (1997/12/01)

323.03 General Requirements

The principal objective in providing an aircraft fire-fighting service is to save lives in the event of an aircraft emergency on the airport or aerodrome. In this context, an aircraft fire-fighting service is a contingent resource tasked with the primary responsibility of providing a fire free egress route for the evacuation of passengers and crew following an aircraft accident. This standard is not intended to limit the fire-fighting service from providing services in addition to that of aircraft fire-fighting at the airport or aerodrome, nor to prevent it from dealing with other occurrences.

323.08 Extinguishing Agents and Equipment*

(1) The principal extinguishing agent shall be a foam suitable for the type of equipment to be used, and

(a) the foams provided as principal extinguishing agents, on the date acquired, shall meet the latest relevant performance specifications of *CAN/ULC-S560* or of *CAN/ULC-S563*; (amended 2000/09/01)

(b) the foam concentrates of different types or from a different manufacturer shall not be mixed except where it has been established that they are completely interchangeable and compatible; and

(c) the quantity of foam concentrates provided on vehicles for foam production shall be in proportion to the quantity of water provided and the foam concentrate selected.

(2) The complementary extinguishing agent shall be a dry chemical powder suitable for the type of equipment to be used, and compatible with the foam or foams selected for use as the principal extinguishing agent at the airport or aerodrome.

(3) The complementary extinguishing agents shall comply with the appropriate specifications of *CAN/ULC-S514-M88*.

(4) The amount of foam concentrate on board vehicles shall be sufficient for at least two full loads of the required quantity of water.

(5) Sufficient quantity of foam concentrate shall be held in reserve to allow for four complete discharges, at the correct percentage, of the water requirement identified in section 303.09 for the critical category published. Part of this reserve may be carried on the fire-fighting vehicles.

(amended 2000/09/01)

(6) A reserve supply of complementary extinguishing agent equivalent to 200 per cent of the quantity of complementary agent requirement identified in section 303.09 for the category published shall be maintained at the airport or aerodrome. The reserve shall include sufficient propellant gas to utilize this reserve complementary agent.

(amended 2000/09/01)

(7) The turrets and reel mounted hand lines designed for aircraft fire-fighting on vehicle(s) equipped with foam fire-fighting equipment shall be tested at least annually, at all pre-set discharge flow rates, in accordance with standard 412 of the National Fire Protection Association (NFPA) to ensure that the correct discharge rate is being delivered, and the required foam physical characteristics are being met.

(amended 2000/09/01)

(8) The equipment delivering the complementary extinguishing agent shall be tested at least annually to ensure that the correct discharge rate and reach is being delivered.

323.14 *Training of Personnel**

(1) Knowledge and Skill Training

Training shall be provided in the following areas:

(a) Generic Training

- (i) AFF Vehicles and Equipment,**
- (ii) Emergency Communications Systems Including Fire Alarms,**
- (iii) Fire-Fighting Personnel Safety,**
- (iv) Fire Behaviour,**
- (v) Extinguishing Agents,**
- (vi) Portable Fire Extinguishers,**
- (vii) Fire Hoses, Nozzles, Turrets, and Other Appliances Available for Fire Fighting,**
- (viii) Fire-fighting Operations,**
- (ix) Emergency Aircraft Evacuation Assistance,**

- (x) Aircraft Cargo Hazards,
- (xi) Live-Fire Training, and
- (xii) First Aid.

(b) Site-Specific Training

- (i) Familiarization with the airport or aerodrome where the firefighter will be carrying out fire-fighting duties,
- (ii) Familiarization with the types of aircraft regularly operating at the airport or aerodrome where the firefighter will be carrying out fire-fighting duties, and
- (iii) Familiarization with fire-fighting duties under the *Aerodrome Emergency Response Plan* for the airport or aerodrome where the firefighter will be carrying out fire-fighting duties.

(2) Level of Achievement to be Attained

(a) Generic Training*

- (i) With respect to AFF vehicles and equipment, the candidate shall be able to:

- (A) Describe each tool and item of equipment on each aircraft fire-fighting vehicle at the airport or aerodrome, including a description of its designated use, required maintenance, proper storage; and demonstrate its use,
- (B) Demonstrate knowledge and skills relative to routine inspection and maintenance of AFF vehicles as required by the manufacturer's specifications and maintenance manuals, and
- (C) Demonstrate the knowledge and skill required to operate AFF vehicles, including manual back-up systems.

- (ii) With respect to emergency communications systems, including fire alarms, the candidate shall be able to:

- (A) Identify the methods and procedures to be followed when an emergency alarm is received,
- (B) Identify radio frequencies and channels assigned for use by the airport or aerodrome to control vehicular traffic,
- (C) Identify radio frequencies and channels assigned for use by the airport or aerodrome Emergency Operations Centre,
- (D) Identify radio frequencies and channels assigned for use by mutual aid organizations,
- (E) Identify radio frequencies and channels assigned for use by responding units and organizations,

- (F) Identify procedures concerning multiple alarms and mutual aid,
 - (G) Demonstrate knowledge of the phonetic alphabet,
 - (H) Demonstrate the use of all communication equipment utilized by the fire-fighting service,
 - (I) Provide an initial status report on a simulated aircraft accident, and
 - (J) Demonstrate standard hand signals used to communicate with aircrew personnel as it relates to aircraft fire fighting.
- (iii) With respect to fire-fighting personnel safety, the candidate shall be able to:
- (A) Identify the hazards associated with aircraft fire fighting,
 - (B) Identify the hazards associated with aircraft and aircraft systems on personnel,
 - (C) Identify potential stress effects on personnel involved in a mass-casualty response,
 - (D) Identify the purpose and limitations of protective clothing,
 - (E) Demonstrate donning protective clothing,
 - (F) Demonstrate techniques for action in a fire situation where trapped or disoriented, or when in an hostile environment,
 - (G) Identify the hazards associated with cut-in entries,
 - (H) Describe the hazardous respiratory environments encountered in aircraft fire fighting,
 - (I) Identify techniques for protection from communicable-disease hazards,
 - (J) Describe the proper techniques for approaching aircraft while engines are running,
 - (K) Identify the purpose of self-contained breathing apparatus (SCBA),
 - (L) Identify the components and operation of the SCBA provided,
 - (M) Identify the limitations of the SCBA provided,
 - (N) Demonstrate that the SCBA is in a safe operating condition for immediate use,
 - (O) Don SCBA equipment while wearing protective clothing,
 - (P) Use SCBA equipment in dense smoke, or a blacked out environment,
 - (Q) Change a team member's air supply cylinder with an exhausted air supply cylinder, and

(R) While wearing SCBA equipment, demonstrate those actions necessary in the event of one of the following emergency situations:

- activation of low-air alarm,
- exhausted air supply,
- regulator malfunction,
- damage to face piece,
- damage to low pressure hose,
- damage to high pressure hose.

(iv) With respect to fire behaviour, the candidate shall be able to:

- (A) Explain the fire tetrahedron,
- (B) Describe the phases of a fire,
- (C) Describe the main products of combustion,
- (D) Describe the three methods of heat transfer,
- (E) Describe the classes of fire and extinguishment methods,
- (F) Define flash point, ignition temperature, flashover, rollover, backdraft and explosion, and
- (G) Describe the various aviation fuels' characteristics with respect to fire behaviour and explosion hazard.

(v) With respect to extinguishing agents, the candidate shall be able to:

- (A) Identify the extinguishing properties of each agent, including advantages and disadvantages,
- (B) Identify those agents used at the airport or aerodrome,
- (C) Identify the locations of agents kept in inventory for vehicle re-supply,
- (D) State the quantity of each type of agent carried on each vehicle at the airport or aerodrome, and
- (E) Identify the preferred agent to use to suppress and extinguish fire in various case scenarios.

- (vi) With respect to portable fire extinguishers, the candidate shall be able to:
- (A) Identify the classification of fires as they relate to the use of fire extinguishers,
 - (B) Identify each type of portable fire extinguisher by classification and rating,
 - (C) Describe the agents' characteristics in the extinguishers used at the airport or aerodrome,
 - (D) Identify the limitations and operating characteristics of each type of portable fire extinguisher,
 - (E) Identify the location of each portable fire extinguisher carried on each AFF vehicle used at the airport or aerodrome,
 - (F) Identify the appropriate extinguisher for a given class of fire from a group of different fire extinguishers, and
 - (G) Operate the appropriate extinguisher on each class of fire.
- (vii) With respect to fire hoses, nozzles, turrets and other appliances available for fire-fighting, the candidate shall be able to:
- (A) Identify the location of each tool and item of equipment used at the airport or aerodrome,
 - (B) Identify the hazards associated with the use of each tool and item of equipment used at the airport or aerodrome,
 - (C) Demonstrate the proper procedures for use of each tool and item of equipment used at the airport or aerodrome,
 - (D) Describe the purpose of each hose, nozzle and adapter,
 - (E) Describe the location of each hose, nozzle and adapter used by the fire-fighting unit at the airport or aerodrome,
 - (F) Describe the size and length of each hose carried on each AFF vehicle used at the airport or aerodrome,
 - (G) Demonstrate the proper procedures for use of each hose, nozzle and adapter used at the airport or aerodrome,
 - (H) Demonstrate the proper procedure to be used when advancing hose for fire attack,
 - (I) Demonstrate the proper procedure to be used when laying hose to establish a re-supply of water,
 - (J) Identify the primary purpose, agent capacity, water capacity, type of agent carried, agent discharge rate/range, personnel requirements, and response limitations for each AFF vehicle used at the airport or aerodrome,

- (K) Demonstrate the operation of handlines and vehicle-mounted discharge devices, and
- (L) Demonstrate the procedures for re-supply using a hydrant, structural vehicles, tank trucks and other vehicles for each AFF vehicle used at the airport or aerodrome.
- (viii) With respect to fire-fighting operations, the candidate shall be able to:
 - (A) State the objective of aircraft fire fighting and the role of the firefighter in response to an aircraft emergency,
 - (B) Describe fire-fighting tactics and evacuation of occupied aircraft,
 - (C) describe fire-fighting tactics of unoccupied aircraft,
 - (D) Select a strategy and tactics for incident control and termination,
 - (E) Perform fire-fighting tactics,
 - (F) Explain the correct procedures for fighting three-dimensional fires,
 - (G) Explain the correct procedures for fighting engine fires,
 - (H) Describe the correct procedures for securing and maintaining a fire free egress route,
 - (I) Describe the proper procedure to use when protecting an aircraft fuselage from fire exposure,
 - (J) Describe the correct procedures to be used when providing protective streams for personnel,
 - (K) Describe the hazards of a brake and wheel fire,
 - (L) Describe the correct procedures to be used when fighting a brake and wheel fire,
 - (M) Describe the correct procedures for controlling runoff from fire control operations and fuel spills,
 - (N) Describe the correct procedures to be used to stabilize aircraft wreckage,
 - (O) Describe the safety precautions for controlling fuel spills,
 - (P) Describe grounding, bonding and hazards associated with static electricity related to aircraft,
 - (Q) Describe the hazards of a hydraulic fire, and
 - (R) Describe the correct procedures to use in the event of fighting a hydraulic fire.

(ix) With respect to emergency aircraft evacuation assistance, the candidate shall be able to:

- (A) Describe the correct procedures to use to protect evacuation points,
- (B) Identify those openings to use to gain entry for a given aircraft and situation,
- (C) Select the tools and equipment to use to gain entry for a given aircraft and situation,
- (D) While wearing full protective clothing, demonstrate the ability to open:
 - (aa) aircraft doors and exits, or
 - (bb) equivalent training doors and exits.
- (E) Identify potential locations for break-in entry using reference materials, aircraft markings, or general guidelines for a given aircraft, and
- (F) Demonstrate the correct procedures to use for a victim search inside and outside the aircraft.

(x) With respect to aircraft cargo hazards, the candidate shall be able to:

- (A) Identify the dangerous goods' classifications,
- (B) Identify the hazards indicated by each label, and
- (C) Identify the emergency procedures to be followed using the reference material in the event of a problem transporting hazardous materials at the airport or aerodrome.

(xi) With respect to live-fire training, in order that the agent is applied with proper technique and the fire extinguished, the candidate shall be able to:

- (A) Extinguish a minimum of 100 ft² (9.3 m²) fuel fire with a minimum of a 100 lb (45 kg) dry chemical extinguisher,
- (B) Extinguish a minimum of 400 ft² (37.2 m²) fuel fire with an AFF vehicle hand line and appropriate agent,
- (C) Extinguish a minimum of 5000 ft² (464.5 m²) fuel fire with AFF vehicle turrets and appropriate agent,
- (D) Extinguish a three-dimensional aircraft fuel fire with AFF vehicle hand lines and appropriate agent,
- (E) Control simulated engine and auxiliary power unit (APU) fires on aircraft with an AFF vehicle hand line or turrets and appropriate agent, and
- (F) Extinguish a simulated tire assembly fire with an AFF vehicle hand line and appropriate agent.

(xii) With respect to first aid, the candidate shall be able to:

- (A) Identify primary and secondary life-threatening injuries,
- (B) Determine whether or not a victim has an open airway,
- (C) Locate an open airway in a person who is not breathing,
- (D) Recognize types and characteristics of external and internal bleeding,
- (E) Demonstrate techniques to control bleeding,
- (F) Perform cardiopulmonary resuscitation,
- (G) Recognize shock,
- (H) Recognize injuries to the skull, spine, chest, and extremities,
- (I) Recognize internal injuries,
- (J) Demonstrate procedures for moving patients,
- (K) Treat burns, and
- (L) Demonstrate knowledge concerning triage methodology.

*(b) Site-Specific Training **

(i) With respect to familiarization with the airport or aerodrome where the firefighter will be carrying out fire-fighting duties, the candidate shall be able to:

- (A) Describe the runway and taxiway identification system,
- (B) Describe the movement area pavement markings, signs, and lighting,
- (C) Identify the various on-field aircraft navigation aids,
- (D) Cite airport or aerodrome rules and regulations concerning vehicle movement and access,
- (E) Cite rules and regulations governing airport or aerodrome security,
- (F) Locate a given point at the airport or aerodrome on a grid map, or other standard map,
- (G) Identify terrain features using map symbols,
- (H) Identify and locate all emergency access roads and standard routes across the movement area,
- (I) Identify and locate all points giving access to the airside from non-operational areas,
- (J) Identify and locate all points giving access to portions of the critical fire-fighting access area, located outside the airport or aerodrome perimeter,

- (K) Identify installations and features in the critical fire-fighting access area that present a hazard to vehicle response,
 - (L) Identify installations and terrain features in the critical fire-fighting access area that limit vehicle response capability,
 - (M) Identify the direction of travel of fuel in a simulated leak in the fuel distribution system applicable to the airport or aerodrome
 - (N) Demonstrate the operation of fuel system valves and pumps to control the flow of fuel within the system applicable to the airport or aerodrome,
 - (O) Identify hazardous materials that are frequently stored or used on the airport or aerodrome property, and
 - (P) Identify elements of the airport or aerodrome and surrounding water distribution system.
- (ii) With respect to familiarization with the types of aircraft regularly operating at the airport or aerodrome where the firefighter will be carrying out fire-fighting duties, the candidate shall be able to:
- (A) Identify the types of aircraft regularly operating at their airport or aerodrome,
 - (B) Identify the categories of aircraft propulsion systems,
 - (C) Use the correct terms to describe major aircraft structural components,
 - (D) Describe the types of batteries found on aircraft and their associated hazards,
 - (E) Identify the general location of portable fire extinguishers,
 - (F) Describe the materials used in aircraft construction,
 - (G) Explain the differences in aircraft construction as it relates to fire fighting,
 - (H) Use an aircraft crash chart to identify and describe the location of normal and emergency exits, fuel tanks, passenger and crew compartments, oil tanks, hydraulic reservoirs, oxygen tanks, batteries, and break-in points for given aircraft,
 - (I) Use an aircraft crash chart to describe passenger, crew and fuel capacities for a given aircraft,
 - (J) Identify a flight data recorder and cockpit voice recorder,
 - (K) Locate normal entry doors, emergency exit openings and evacuation slides for a given aircraft,
 - (L) Describe the opening of all doors and compartments for a given aircraft,
 - (M) Describe the operation of evacuation slides and/or other emergency egress systems for a given aircraft,

- (N) Identify aircrew and passenger locations for a given aircraft,
- (O) Indicate the type of fuel used and location of fuel tanks for a given aircraft,
- (P) Locate break-in points for a given aircraft,
- (Q) Locate the batteries for a given aircraft,
- (R) Locate key components of the fuel, oxygen, hydraulic, electrical, fire protection, anti-icing, APU, brake, wheel systems, and pressurization systems for a given aircraft, and
- (S) Describe aircraft hazards that may be unique or unusual for a given aircraft.

Information Note

Examples of unusual hazards include military aircraft equipped with ejection seats, tanks containing pesticides on crop-spraying aircraft, and aircraft equipped with additional fuel tanks for ferry purposes.

(iii) With respect to familiarization with firefighter duties under the *Airport or Aerodrome Emergency Response Plan for the Airport or Aerodrome* where the fire-fighter will be carrying out fire-fighting duties, the candidate shall be able to:

- (A) Describe each emergency listed in the plan,
- (B) Describe the chain of command and authority, and identify the individuals associated with each position requiring a response from the aircraft fire-fighting service for each emergency listed in the plan,
- (C) If applicable, describe the procedure for the change of command during any phase of the emergency requiring a response from the aircraft fire-fighting service for each emergency listed in the plan,
- (D) With reference to the emergency response plan, identify other agencies involved in the plan requiring a response from the aircraft fire-fighting service, and describe their respective roles and responsibilities for each emergency listed in the plan, and
- (E) Demonstrate a knowledge of their individual role and duties during regular exercises under the plan.

(3) Additional Training**(a) Low-Visibility Training**

At an airport or aerodrome certified for low-visibility operations for Category III approaches, firefighters shall practise the use of low-visibility equipment provided at that airport or aerodrome in simulated Category III low-visibility conditions, and demonstrate the ability to:

- (i) Locate a simulated accident site,

- (ii) Navigate the aircraft fire-fighting vehicle to the simulated accident site, and
- (iii) Negotiate terrain and obstacles with the AFF vehicle.

(b) Command and Control Training

Where a firefighter is assigned operational command and control responsibilities for the aircraft fire-fighting service, training in command and control functions shall be provided to enable that fire-fighter to:

- (i) Assess tactical priorities;
- (ii) Control and manage a fire stream;
- (iii) Control and manage resources;
- (iv) Select, employ and direct a defensive strategy;
- (v) Assess fireground factors;
- (vi) Direct apparatus placement; and
- (vii) Explain command procedures.

(4) Recurrent Training

(a) General

Recurrent training shall be provided to enable each firefighter to maintain the level of proficiency established in this standard.

Except for subparagraph 323.14(2)(a)(xi) respecting live-fire training, every firefighter must complete training in each element of the standards listed in section 323.14 at least once every three years.

(b) Live-Fire Training

Live-fire drill training shall be provided to all fire-fighting personnel every 12 months as follows:

- (i) A live-fire drill shall simulate a realistic fire-fighting situation, and be of sufficient size and intensity to provide a challenge to the firefighter in relation to the equipment used,
- (ii) The conditions simulated in a live-fire drill shall emulate the type of fire which could be encountered on a typical aircraft at the airport or aerodrome.
- (iii) During the drill, each firefighter shall demonstrate the control and extinguishment of a simulated aircraft fire using:
 - (A) Handlines and/or turrets using an AFF vehicle of a type used at the airport or aerodrome, and

(B) Fire-fighting streams to protect firefighters and aircraft occupants using either handlines or turrets.

Information Note

It is intended that the live-fire drill will provide an opportunity for the fire-fighting team to become familiar with the use of all fire extinguishment equipment that will be used in the event of an accident. If possible, a simulated evacuation of aircraft occupants will help in creating a realistic situation.

323.16 Firefighter Qualifications*

(1) Training Records

Individual training records shall be maintained on each firefighter and shall include as a minimum:

- (a) the name of the individual being trained,
- (b) the date of training,
- (c) the place where training is received,
- (d) the subjects covered and course methodology,
- (e) the climatic conditions, in the case of practical training,
- (f) the duration of training,
- (g) any instructor comments,
- (h) the performance evaluation,
- (i) the name of the instructor, and
- (j) the signature of the student.

323.19 Communication and Alerting System

(1) The alerting system shall allow the activating agency to alert the personnel and dispatch the aircraft fire-fighting vehicles. A secondary power supply or alternate system shall be provided as a contingency in the event of a primary system failure.

(2) Each aircraft fire-fighting vehicle shall be provided with communication equipment capable of communicating with at least:

- (a) every other aircraft fire-fighting vehicle,
- (b) the fire station exercising operational control as specified in the *Aerodrome Emergency Response Plan*,

(c) the air traffic services unit, community aerodrome radio station (CARS), authorized approach unicom, or where no ground radio station is provided on the airport or aerodrome, the aerodrome traffic frequency (ATF), and

(d) an aircraft in a situation of emergency using an established discreet frequency.
(amended 2001/06/01)

(3) A communication system shall be provided to ensure the prompt and dependable transmission of alarms and other essential emergency information. Direct communication shall be provided between the activating agency or authority, the fire station, and responding vehicles and between the responding vehicles and an aircraft in a situation of emergency using an established discreet frequency.
(amended 2001/06/01)

(4) An alerting system for fire-fighting personnel, and/or other designated airport or aerodrome personnel shall be provided at a fire station and capable of activation from that station, or other designated agency.

(5) The requirements and responsibilities for the utilization of a discreet frequency between the aircraft fire-fighting service and the flight crew of an aircraft in a situation of emergency shall be detailed in an agreement on procedural operational arrangements between the air traffic services and the airport operator.
(amended 2001/06/01)



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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS

STANDARD 325 - HELIPORTS

Canada 

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NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS

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STANDARD 325 - HELIPORTS

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PART III - AERODROMES, AIRPORTS AND HELIPORTS

STANDARD 325 - HELIPORTS

(amended 2007/06/30)

Foreword

Standard 325 - *Heliports* outlines the minimum technical specifications for the physical characteristics, obstacle limitation surfaces, and technical services at a heliport necessary for the purposes of complying with Part III of the *Canadian Aviation Regulations* (CARs).

In addition to providing a means to assess the operational use of a facility, this Standard, which reflects recognized international safety parameters, provides the technical specifications to be used when building a new heliport or modifying an existing heliport where the objective is for the heliport to be certified by the Minister of Transport.

The specifications in this Standard complement those contained in the applicable *Aerodrome Standards and Recommended Practices* (TP 312) document. Where a particular part of an airport is used exclusively for helicopters, the specifications in this Standard shall also be used.

In the development of this Standard the following minimum helicopter dimensions were assumed:

- overall length, 11 m;
- rotor diameter, 9 m;
- skid length or wheelbase, 2 m; and
- gross weight, 1200 kg.

Since this Standard is meant to accommodate the operational use of a heliport, operators are cautioned to adequately define the intended operational use prior to any new construction or modification.

Finally, italicized text that follows or precedes a numbered provision in this Standard is not a compulsory part of this Standard and is to be understood as explanatory text only.

DIVISION I — GENERAL

325.01 *Interpretation*

(1) The words and expressions used in this Standard have the same meaning as in the *Aeronautics Act* and the *Canadian Aviation Regulations*, with the following additions:

“aeronautical ground light” means any light specially provided as an aid to air navigation, other than a light displayed on an aircraft. (*feu aéronautique à la surface*)

- “air taxiway” means a defined obstruction-free corridor in which helicopters hover-taxi above the surface of the ground. (*voie de circulation en vol rasant*)
- “approach” means a manoeuvre commencing with the final descent with the intention to land resulting in the arrival of a helicopter at a heliport or an aerodrome but not including the completion of the flight by the contact with the surface. (*approche*)
- “approach/departure path” means an area consisting of a quadrilateral area on the surface of the earth lying directly below the approach/take-off surface. (*trajectoire d’approche ou de départ*)
- “certifying authority” means the Regional Director of Civil Aviation, Transport Canada. (*détenteur des pouvoirs de certification*)
- “decision point” means the point used in determining take-off performance from which, a power unit failure occurring at this point, either a rejected take-off may be made or a take-off safely continued. (*point de décision*)
- “elevated/rooftop heliport” means a heliport elevated more than 75 cm above the normal elevation of the ground. (*hélicopteur surélevé ou sur toit*)
- “emergency landing area” means an area where an unavoidable landing or ditching may take place with a reasonable expectancy of no injuries to persons or damage to property on the surface. (*aire d’atterrissage d’urgence*)
- “ground effect” means the flying or hovering of a helicopter near the ground or other solid surface that improves the helicopter’s flight capability as a result of the cushion of denser air built up between the surface and the helicopter by the air displaced downwards by the lifting rotor(s). (*effet de sol*)
- “helicopter clearway” means a defined rectangular area on the ground, water, building or other supporting structure selected, or prepared as an area over which a helicopter may accelerate and achieve a specific height. (*prolongement dégagé pour hélicoptères*)
- “helicopter ground taxiway” means a ground taxiway for use by helicopters only. (*voie de circulation au sol pour hélicoptères*)
- “overall length” means the maximum length of a helicopter, including rotor(s), measured through the fore and aft centre line of the helicopter. (*longueur hors tout*)
- “helicopter parking position” means a part of the apron designated for the touchdown and parking of helicopters that have taxied from a FATO, runway or another part of the aerodrome. (*poste de stationnement d’hélicoptère*)
- “heliport elevation” means the elevation of the highest point of each FATO. (*altitude d’un hélicopteur*)
- “heliport geometric centre” means the mean of the latitudes of the northernmost FATO edge and southernmost FATO edge and the mean of the longitudes of the easternmost FATO edge and westernmost FATO edge. (*centre géométrique d’un hélicopteur*)

- “heliport reference point” means the designated point or points on a heliport located at or near the geometric centre of the FATO or the centroid of multiple FATOs that establishes the locus of the radius or radii of the outer surface that is established by a zoning regulation. (*point de référence d’un héliport*)
- “hover-taxi” means the movement of a helicopter above the surface of an aerodrome in ground effect and at an airspeed less than 37 km (20 kt). (*circulation près du sol*)
- “instrument FATO” means a FATO intended for the operation of helicopters using instrument approach procedures. (*aire d’approche finale et de décollage avec approche aux instruments ou FATO avec approche aux instruments*)
- “non-instrument FATO” means a FATO intended for the operation of helicopters under visual meteorological conditions (VMC). (*aire d’approche finale et de décollage avec approche à vue ou FATO avec approche à vue*)
- “non-precision FATO” means an instrument FATO served by visual aids and a non-visual navigation aid that provides at least directional guidance adequate for a straight-in approach to a minimum descent height less than 500 ft (152 m) but not less than 250 ft (76 m) above the FATO elevation. (*aire d’approche finale et de décollage avec approche de non-précision (FATO avec approche de non-précision)*)
- “obstacle” means an object that could have an adverse effect on the safe operation of aircraft in flight or on the ground. (*obstacle*)
- “precision FATO” means an instrument FATO served by visual and non-visual navigation aids that provide lateral and vertical guidance adequate for approach down to a decision height less than 250 ft (76 m) but not less than 200 ft (61 m) above the FATO elevation and an operating visibility not less than 1/4 statute mile or runway visual range (RVR) 1200. (*aire d’approche finale et de décollage avec approche de précision (FATO avec approche de précision)*)
- “rejected take-off area” means a defined rectangular area on the ground abutting the FATO area prepared as an area in which an aircraft can be stopped in the case of a rejected take-off. (*aire de décollage interrompu*)
- “rotor downwash” means the volume of air displaced downwards by the lifting rotors which, when it strikes the ground or other solid surface, causes a turbulent outflow from beneath the helicopter. (*souffle rotor*)
- “safety area” means a defined area surrounding the FATO which is kept free of obstacles other than objects required for navigation purposes. (*aire de sécurité*)
- “surface level heliport” means a heliport located on the ground or a floating heliport located on the water. (*héliport en surface*)

DIVISION II — CERTIFICATION

Reserved

**DIVISION III — OPERATOR OF A CERTIFIED
HELIPORT**

Reserved

**DIVISION IV — GENERAL CERTIFICATION
REQUIREMENTS****325.19 Heliport Classification*****Information Note 1:***

Heliports are classified in accordance with the performance requirements of the helicopters using the facility. Because of the variety of sites where a heliport may be located, it is not always possible to safely conduct unrestricted operations at every heliport. A major safety consideration to be taken into account when siting a heliport is the availability of suitable approach-departure paths leading to and from the heliport.

Information Note 2:

The classification of a heliport serves to identify helicopter performance requirements for specific heliports. It is also useful as a planning tool to relate operational factors with land use and zoning and to establish supporting facilities.

Classification of Non-Instrument Heliports

(1) For the purposes of paragraph 305.19(a) of the *Canadian Aviation Regulations*, the heliports classifications, in respect of non-instrument heliports, are the following:

Information Note 1:

Heliports are classified by the obstacle environment within which the heliport is located and the availability of emergency landing areas. The obstacle environment and the availability of emergency landing areas will dictate the performance capabilities required by the helicopters using the heliport.

Information Note 2:

Heliports are divided into two categories: instrument and non-instrument. Non-instrument heliports have three classifications: H1, H2 and H3.

(a) a non-instrument heliport is classified as H1 if the heliport is located within an obstacle environment where

- (i) there is no emergency landing area within 625 m from the FATO, and
- (ii) the helicopters using the heliport can be operated at a weight, and in such a manner that, in case of an engine failure at any time during approach or take-off, the helicopters can either
 - (A) land and safely stop on the FATO or TLOF area, or
 - (B) safely continue the flight to an appropriate landing area;

(b) a non-instrument heliport is classified as H2 if the heliport is located within an obstacle environment where

- (i) the height of the obstacles are infringing the first section slope of the approach and take-off surface set out in Table 4-1, and
- (ii) there are reachable emergency landing or rejected take-off areas within 625 m of the FATO in relation to the altitude of the helicopter and its performance with one engine inoperative;

(c) a non-instrument heliport is classified as H3 if the heliport is located within an obstacle environment where

- (i) the height of obstacles do not penetrate any of the obstacle limitation surface (OLS) requirements set out in Table 4-1, and
- (ii) there are reachable emergency landing areas or rejected take-off areas within 625 m of the FATO in relation to the altitude of the helicopter and its performance during autorotation.

Information Note:

The main factor in determining the suitability of emergency landing areas will be the helicopter type with the most critical performance characteristics the heliport is intended to serve.

Helicopter Performance Requirements

(2) For the purposes of paragraph 305.19(b) of the *Canadian Aviation Regulations*, the heliport classifications in respect of performance requirements of helicopters that are expected to use the heliport are the following:

- (a) helicopters permitted to use an H1 heliport shall be multi-engined and capable of remaining at least 4.5 m (15 feet) above all obstacles within the approach/departure area in accordance with subsection 325.29(3) when operating in accordance with their aircraft flight manual with one engine inoperative; and
- (b) helicopters permitted to use an H2 heliport shall be multi-engined.

325.20 Operational Limitations

Load Bearing Strength

(1) For the purposes of paragraph 305.20(a) of the *Canadian Aviation Regulations*, the operational limitations in respect of load bearing strength of a TLOF located on an elevated/rooftop heliport or a floating supporting structure, are the following:

- (a) the TLOF shall be capable of supporting static and dynamic loads imposed by the largest helicopter for which the heliport is certified;
- (b) the design static load shall be equal to the helicopter's maximum certificated take-off weight applied through the total contact area of the wheels or skids; and

(c) the dynamic loads shall be at least 150 per cent of the maximum certificated take-off weight transmitted through the main wheels or through the contact areas of a skid equipped helicopter.

Maximum Helicopter Overall Length

(2) For the purposes of paragraph 305.20(b) of the *Canadian Aviation Regulations*, the operational limitations in respect of the maximum helicopter overall length, are the following:

- (a) the width or diameter of the FATO divided by 1.5;
- (b) if the FATO is on an elevated/rooftop, the width or diameter of the TLOF contained within the FATO, or
- (c) if the FATO is non-supporting or otherwise not intended for touchdown, the smaller of
 - (i) the width of the largest helicopter parking position divided by 1.2, or
 - (ii) the width of an air taxiway leading to a FATO divided by 2.

Information Note:

The determination of a maximum helicopter overall length is to convey to pilots the operational limitations of the heliport relative to helicopter size.

Heliport Category and Classification

(3) For the purposes of paragraph 305.20(c) of the *Canadian Aviation Regulations*, the operational limitations in respect of the heliport category and classification, as specified in the HOM, are the following:

- (a) the heliport category shall be determined as instrument or non-instrument as specified in the HOM; and
- (b) the heliport classification shall be determined as H1, H2 or H3 in accordance with subsection 325.19(1).

DIVISION V — PHYSICAL CHARACTERISTICS

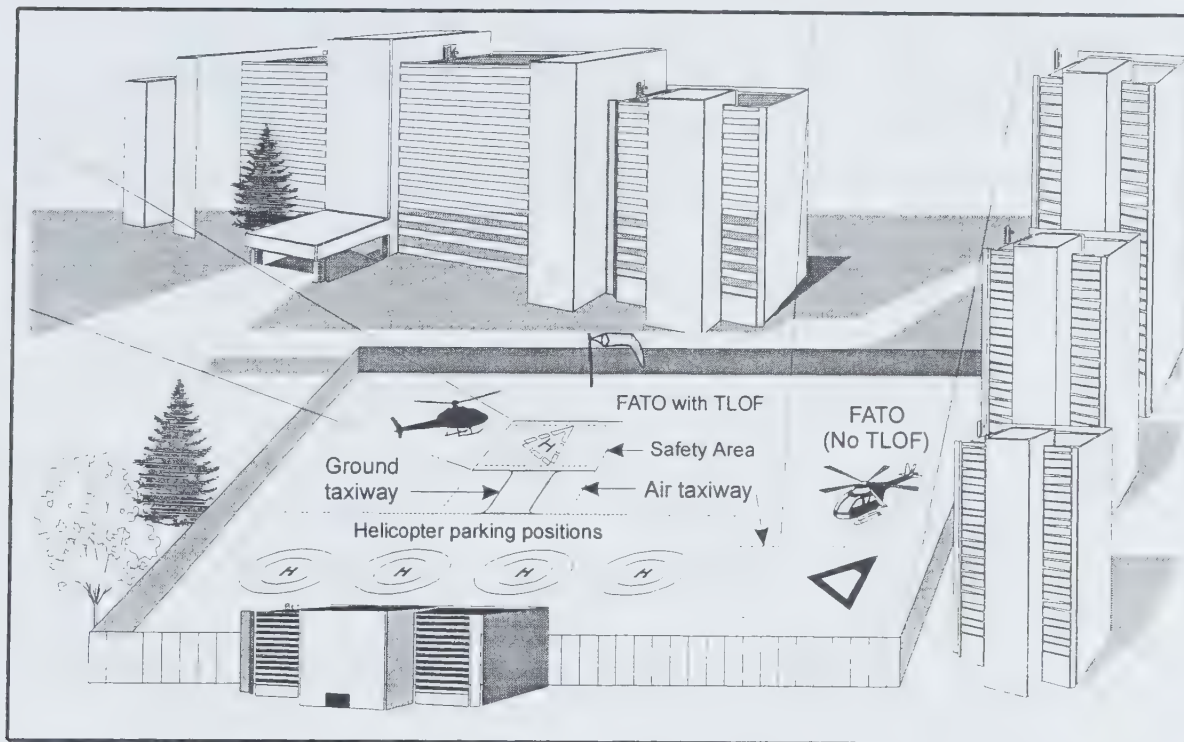
325.25 *Physical Characteristics*

Figure 3-1. Illustration of a heliport general layout

Information Note:

When establishing a heliport in accordance with the physical dimensions and characteristics of this Standard, other factors, such as wind, temperature, and the performance capability of the helicopter should be considered in determining whether or not a particular helicopter can operate safely into and out of the heliport.

Requirements for all Heliports

(1) For the purposes of subsection 305.25(2) of the *Canadian Aviation Regulations*, the following constitutes the requirements for all heliports:

Final Approach and Take-off Areas (FATO)

(a) the requirements for the FATO are the following:

Information Note:

The size of the FATO will have a direct impact on the operational use of the heliport. The specifications in this Standard are based on a FATO size that is 1.5 times larger than the longest helicopter for which the heliport is certified.

- (i) as specified in paragraph 305.25(1)(a) of the *Canadian Aviation Regulations*, a heliport shall be provided with at least one FATO,
- (ii) as specified in paragraph 305.25(1)(b) of the *Canadian Aviation Regulations*, a FATO shall only be used to accommodate the operation of one helicopter at a time and, as a result:
 - (A) a helicopter parked in a FATO renders the FATO unavailable for take-off or landing by another helicopter, and
 - (B) if more than one helicopter at a time lands, takes-off or parks, additional FATOs, aprons or helicopter parking positions shall be provided;
- (iii) the elevation of the terrain between a FATO and a helicopter parking position shall allow for the transition to and from a FATO to a helicopter parking position to be made in ground effect,
- (iv) adjacent FATOs shall be separated by at least 0.166 times the width or diameter of the largest FATO,
- (v) a precision FATO shall be at least 19.7 m wide and 45 m long. The size of all other FATOs shall accommodate a circle that has a diameter of at least 16.5 m,
- (vi) the surface of a FATO shall be free of irregularities that would adversely affect safety for the take-off and landing of helicopters and be treated to prevent flying debris caused by rotor downwash,

Information Note:

Rotor downwash can cause a safety hazard to people and equipment on the ground in the immediate vicinity of a helicopter. The size and weight of the helicopter, as well as the ambient wind direction and speed, have a significant effect on the extent of this hazard. A protection area around the helicopter rotor(s), measured from the tip of the rotor blade, that is approximately 3 times the overall length of the largest helicopter using the heliport, is considered suitable in most weather conditions.

- (vii) a FATO shall be kept clear of all obstacles except for those required for air navigation purposes and those shall be flush mounted in the surface, and
- (viii) the over-all slope in any direction on a FATO shall not exceed 3 per cent;

Safety Areas

Information Note:

The purpose of the safety area is to provide

- *an obstacle free area for helicopters accidentally diverging from a FATO*
- *an area for the installation of visual and non-visual aids*
- *an area for the drainage and run-off from a FATO.*

(b) the requirements for the safety areas are the following:

- (i) a FATO and any associated rejected take-off area shall be surrounded by a safety area,
- (ii) the boundary of a safety area for a non-instrument and a non-precision FATO shall extend outward from the periphery of the FATO and any associated rejected take-off area for the greater of 3 m or 0.166 times the width of the FATO,
- (iii) the safety area for a non-instrument and a non-precision FATO shall be extended to join the inner edge of the approach/take-off surface to a point 90° in the direction of the approach/departure path from the centre of the safety area, at a distance equal to the width of the safety area corresponding to the shaded area as indicated in Figure 4.1,
- (iv) a safety area for a precision FATO shall
 - (A) extend to a distance of at least 60 m beyond the ends of the FATO and rejected take-off area, and
 - (B) extend on each side of the centre line of the FATO and any associated rejected take-off area at least the greater of 45 m or 0.666 times the width of the FATO,
- (v) the surface of a safety area around a FATO shall abut the FATO,
- (vi) the surface of a safety area shall not exceed an upward slope of 4 per cent outward from the edge of the FATO,
- (vii) a safety area with an upward slope shall be provided with drainage,
- (viii) a fixed object, other than a visual aid required for air navigation purposes or a safety net, shall not be located on a safety area,
- (ix) no mobile object is to be permitted on a safety area during helicopter operations,
- (x) an object located on a safety area shall not exceed a height of 25 cm when located along the edge of the FATO, nor project through a plane originating at a height of 25 cm above the edge of a FATO and sloping upwards and outward at a gradient of 4 per cent,
- (xi) an object located on a safety area shall be frangible, and
- (xii) the surface of a safety area shall be treated to prevent flying debris caused by rotor downwash;

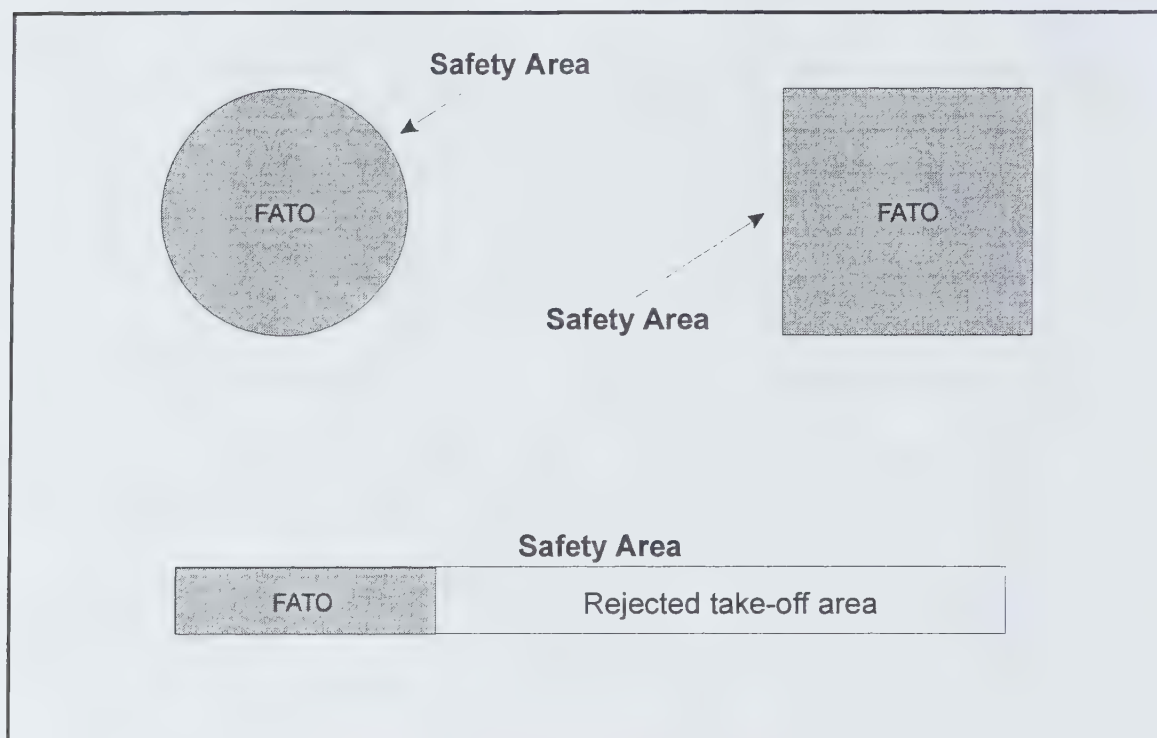


Figure 3-2. Location and orientation of safety area

Rejected Take-off Areas

(c) where, as specified in the HOM, rejected take-off areas are provided, the requirements are the following:

- (i) it shall be located immediately adjacent to a FATO in the direction of departure,
- (ii) it shall not be less than the width of the adjacent FATO,
- (iii) the over-all slope in the terrain, in any direction from the edge of the FATO to the end of the rejected take-off area, shall not exceed 3 per cent,
- (iv) no portion of any slope in the terrain within the rejected take-off area shall exceed 5 per cent,
- (v) the surface of the rejected take-off area shall
 - (A) be treated to prevent flying debris caused by rotor downwash,
 - (B) as specified in the HOM, be free of irregularities that would adversely affect the safety for the take-off or landing of helicopters, and
 - (C) as specified in the HOM, be capable of supporting the helicopters that the heliport is intended to serve without structural damage to the helicopters;

Helicopter Clearways

(d) where, as specified in the HOM, helicopter clearways are provided, the requirements are the following:

- (i) it shall be located immediately adjacent to the FATO or the rejected take-off area and oriented in the direction of departure,
- (ii) it shall not be less than the width of the associated safety area,
- (iii) it may extend outside the heliport boundary only if the heliport operator has established control over the additional area and the area is kept clear of obstacles during helicopter operations,
- (iv) an object situated on a helicopter clearway, which may endanger a helicopter in the air, shall be removed,
- (v) the length of a helicopter clearway is the shortest of the following distances:
 - (A) 400 m,
 - (B) the distance to the first object that projects above the slope of a plane commencing at the edge of the FATO having an upward slope of 3 per cent, except for heliport visual aids or other light weight frangible mounted objects required for air navigation purposes, or
 - (C) the distance to the point where the ground projects above the slope of a plane commencing at the edge of the FATO having an upward slope of 3 per cent, and
- (vi) the take-off distance available for heliports (TODAH) shall be recalculated when an established heliport clearway is infringed by a new object, except for heliport visual aids or other light weight frangible objects required for air navigation purposes;

Touchdown and Lift-off Area (TLOF)

(e) where, as specified in the HOM, a TLOF is provided, the requirements are the following:

- (i) if a TLOF is provided, it shall be located in a FATO,
- (ii) slopes on a TLOF shall not exceed 2 per cent in any direction, and
- (iii) the bearing strength of the surface of the TLOF shall be sufficient to support the weight of the largest helicopter for which the heliport is certified;

Taxiways

(f) where, as specified in the HOM, taxiways are provided, the requirements are the following:

(i) in the case of air taxiways:

- (A) if a helicopter parking position is provided, an air taxiway shall be established between a FATO and the helicopter parking position,
- (B) the width of an air taxiway shall be at least 2 times the overall length of the longest helicopter for which the air taxiway is certified in accordance with Figure 3-3,
- (C) the surface of an air taxiway shall offer enough resistance to prevent flying debris caused by rotor downwash and be capable of supporting the helicopters that the heliport is intended to serve, as specified in the HOM, during an emergency landing without structural damage to the helicopters, and
- (D) the transverse slope of the surface of an air taxiway shall not exceed 5 per cent calculated from the centre line of the air taxiway,



Figure 3-3. Minimum helicopter air taxiway width

(ii) in the case of helicopter ground taxiways:

Information Note:

Refer to Figure 3-4.

- (A) where a ground taxiway is used for the purpose of aeroplanes and helicopters, it shall comply with TP 312 or any more recent applicable standard pertaining to the same subject,
- (B) where a helicopter ground taxiway is established between a FATO and a helicopter parking position
 - (I) the width of the helicopter ground taxiway shall not be less than the width set out in Table 3-1 that corresponds to the dimensions of the helicopter for which the helicopter ground taxiway is certified,
 - (II) the helicopter ground taxiway shall be capable of withstanding the weight of helicopters for which the helicopter ground taxiway is certified,
 - (III) the transverse slope of a helicopter ground taxiway shall not exceed 2 per cent,
 - (IV) the longitudinal slope of the helicopter ground taxiway shall not exceed 3 per cent,
 - (V) the helicopter ground taxiway shall provide sufficient drainage to prevent accumulation of standing water, and
 - (VI) the surface of the helicopter ground taxiway shall be treated to prevent flying debris caused by rotor downwash,
- (C) a helicopter ground taxiway shall be provided with taxiway shoulders,
- (D) a helicopter ground taxiway shall be included in a strip,

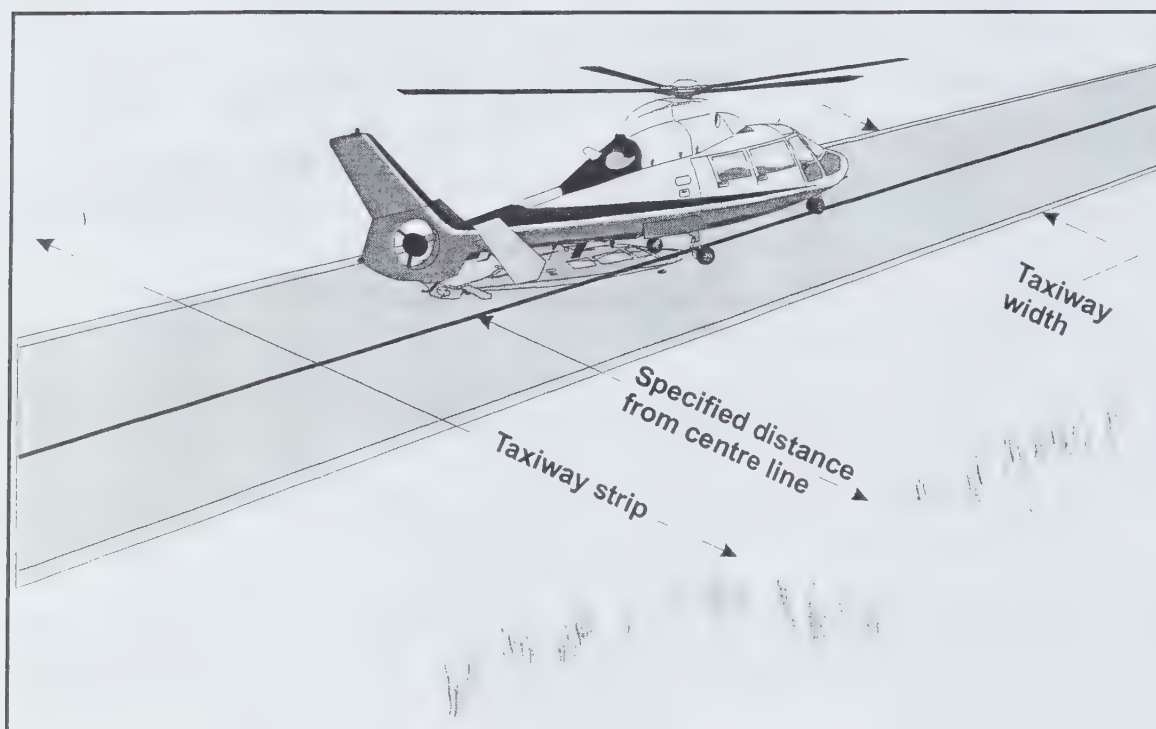


Figure 3-4. Helicopter ground taxiway

(iii) in the case of helicopter ground taxiway shoulders:

- (A) ground taxiway shoulders shall extend symmetrically on each side of a helicopter ground taxiway centre line for at least the distance set out in Table 3-1 that corresponds to the dimensions of the helicopter for which the ground taxiway is certified,
- (B) ground taxiway shoulders shall be capable of withstanding the weight of helicopters for which the helicopter ground taxiway is certified,
- (C) the transverse slope of the helicopter ground taxiway shoulder shall not exceed 2 per cent calculated from the helicopter ground taxiway centre line, and
- (D) the surface of the ground taxiway shoulder shall be resistant to the effect of rotor downwash,

(iv) in the case of helicopter ground taxiway strips:

- (A) a helicopter ground taxiway strip shall extend symmetrically on each side of the taxiway centre line throughout the length of the taxiway to the distance set out in Table 3-1 that corresponds to the dimensions of the helicopter for which the ground taxiway is certified, and

(B) no object shall be located on a helicopter ground taxiway strip if its presence or movement caused by rotor downwash will endanger taxiing helicopters,

Table 3-1
Requirements for Ground Taxiways

Helicopter Dimensions		Minimum Ground Taxiway Width	Taxiway Shoulder: Minimum Distance from centre line	Taxiway Strip: Minimum Distance from Centre Line
Gear span	Rotor span			
(1)	(2)	(3)	(4)	(5)
Less than 2.5 m	Less than 14 m	5.0 m	7 m	12.5 m
2.5 m to but not including 3.5 m	14 m to but not including 16 m	6.5 m	8 m	13.75 m
3.5 m to but not including 4.5 m	16 m to but not including 20 m	8.0 m	10 m	16.0 m
4.5 m to but not including 5.5 m	20 m to but not including 26 m	9.5 m	13 m	19.25 m
5.5 m to but not including 6.5 m	26 m to but not including 34 m	11.0 m	17 m	25.25 m

Aprons

(g) where, as specified in the HOM, aprons are provided, the requirements are the following:

- (i) it shall be located so that parked helicopters will not project through the obstacle limitation surface (OLS) prescribed in section 325.29, and
- (ii) the slope on the apron in any direction shall not exceed 2 per cent;

Helicopter Parking Positions

(h) where, as specified in the HOM, helicopter parking positions are provided, the requirements are the following:

- (i) it shall be located on an apron,
- (ii) adjacent helicopter parking positions shall be separated by at least 4.5 m,
- (iii) it shall be separated from any adjacent building or object by at least 4.5 m,
- (iv) it shall provide a circular area with a diameter not less than the 1.2 times the overall length of the longest helicopter for which the helicopter parking position is certified,
- (v) it shall be capable of withstanding the weight of helicopters for which the helicopter parking position is certified, and
- (vi) its slope shall be sufficient to prevent accumulation of water on the surface of the area but shall not exceed 2 per cent in any direction.

Special Requirements for Surface-Level Heliports

(2) The following constitutes the special requirements for surface-level heliports, for the purposes of subsection 305.25(3) of the *Canadian Aviation Regulations*:

Touchdown and Lift-off Areas (TLOF)

(a) in addition to the technical specifications already set out in paragraph 325.25(1)(e), the requirements for the TLOF, in respect of surface-level heliports are the following:

- (i) the TLOF shall be large enough to contain a circle of diameter of at least 2 times the longer of the length or width of the undercarriage of the largest helicopter for which the heliport is certified,
- (ii) if the TLOF is not located in the centre of a FATO, it shall not be located closer to the FATO boundary than 0.75 times the overall length of the longest helicopter for which the heliport is certified, and
- (iii) a TLOF shall be at the same elevation as, and be an integral part of, a FATO;

Information Note:

The marking requirements pertaining to heliport identification marking, aiming point marking, or hospital heliport marking set out in Division V are not related to TLOF size. Therefore, the method of marking will depend on type of surface being marked between a TLOF and its surroundings such as grass, gravel or hard surface.

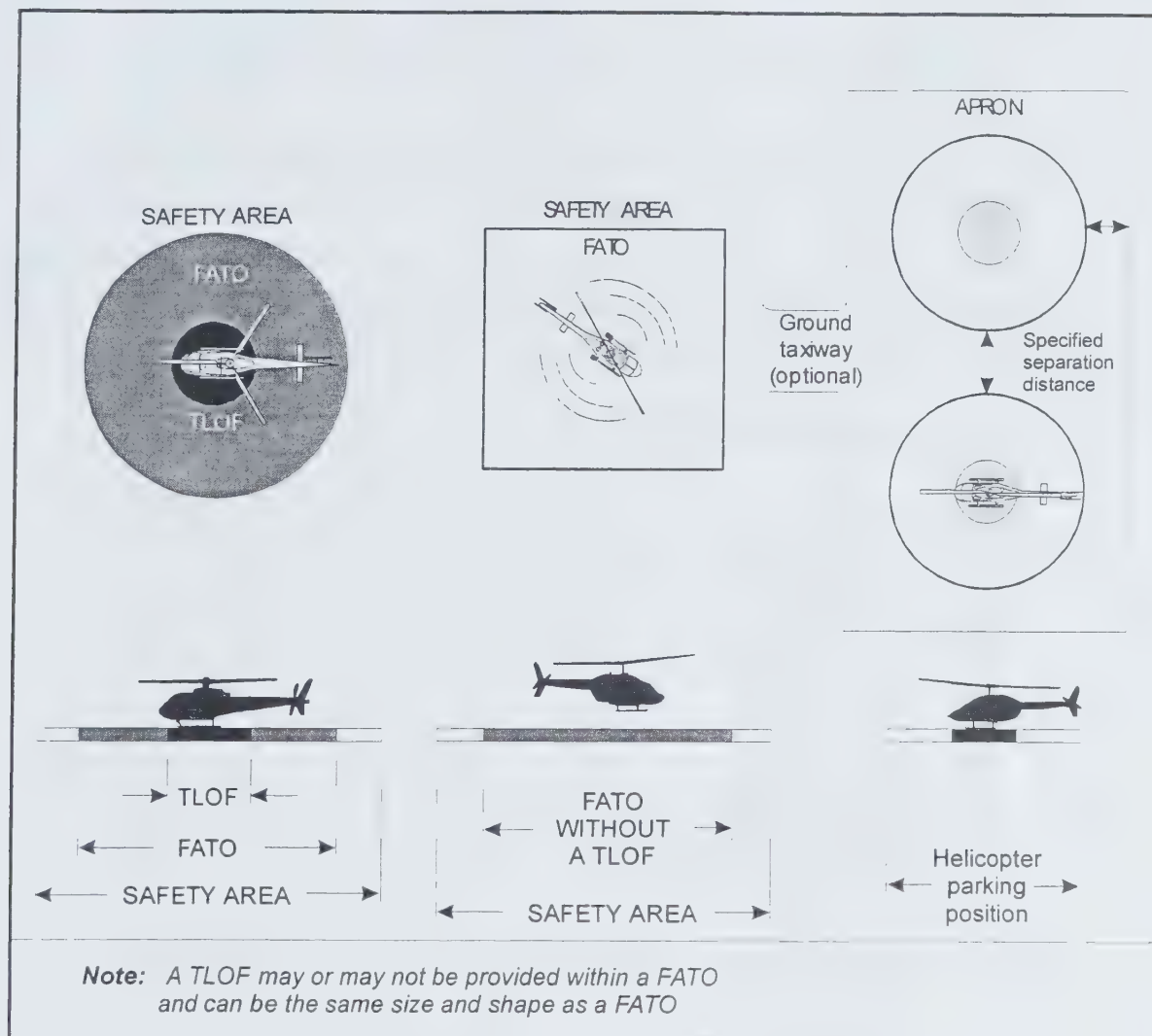


Figure 3-5. Surface level heliport operational areas

Taxiways

(b) in addition to the technical specifications already set out in subparagraphs 325.25(1)(f)(ii) to (iv), the requirements for taxiways, in respect of surface-level heliports are the following:

- (i) the separation distance between two adjacent helicopter ground taxiways shall not be less than the distance required to permit a maximum of 3 m overlap of the helicopter ground taxiway strips in accordance with Figure 3-3,

- (ii) if, as specified in the HOM, two adjacent helicopter ground taxiways cannot meet the separation distance, procedures shall be in place to control the traffic on both taxiways,
- (iii) where, as specified in the HOM, a helicopter ground taxiway or air taxiway is provided, a taxi-holding position or positions shall be established at an intersection of a taxiway and a FATO, and
- (iv) a taxi-holding position shall not be located closer than the outer edge of the safety area, and in the case of a precision FATO, located so that a holding aircraft or vehicle will not interfere with the operation of radio navigation aids;

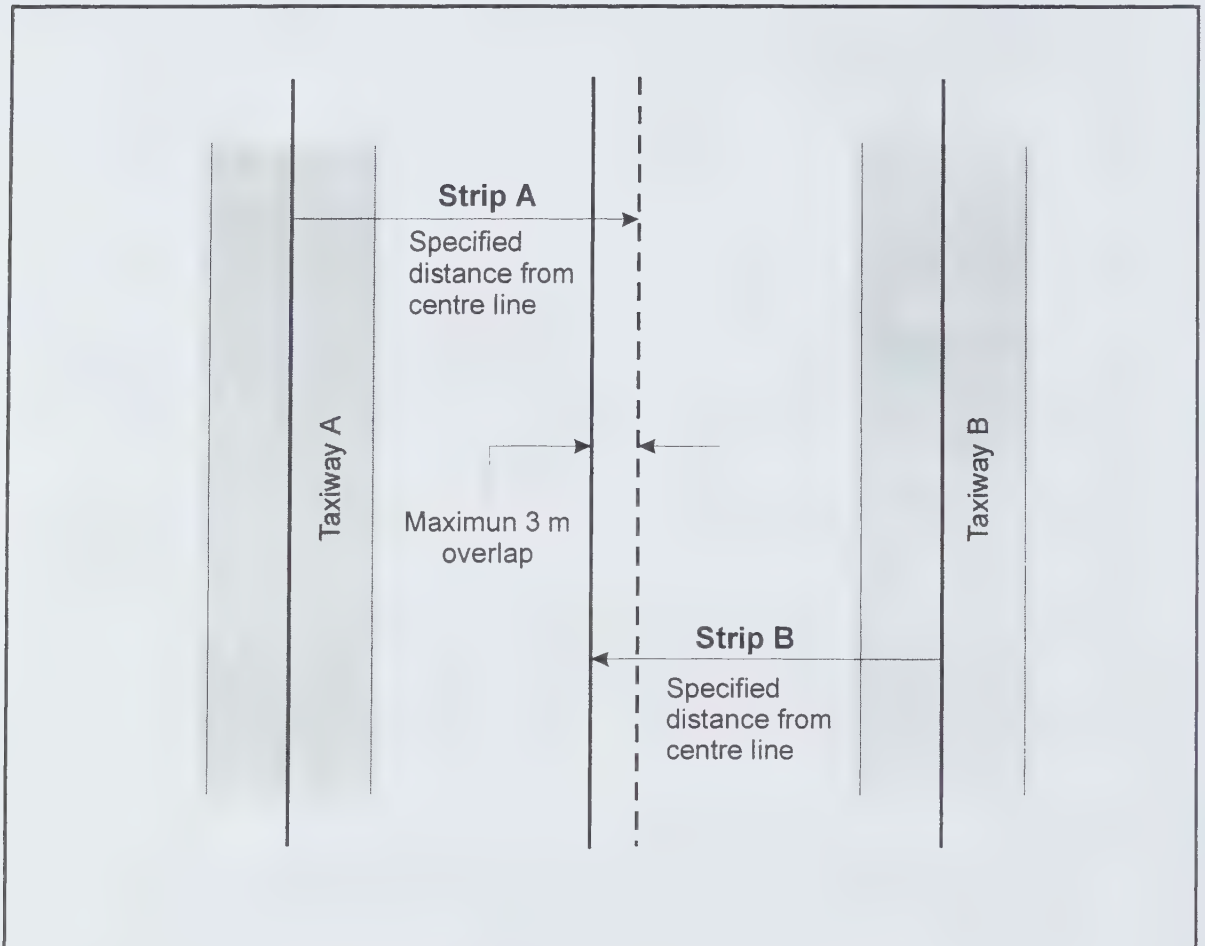


Figure 3-6. Helicopter ground taxiway separation distance

Aprons

(c) the requirement for aprons, in respect of surface-level heliports is the following:

- (i) if, as specified in the HOM, a TLOF is not provided within a FATO, an apron shall be provided and at least one helicopter parking position shall be provided on the apron.

Special Requirements for Elevated/Rooftop Heliports

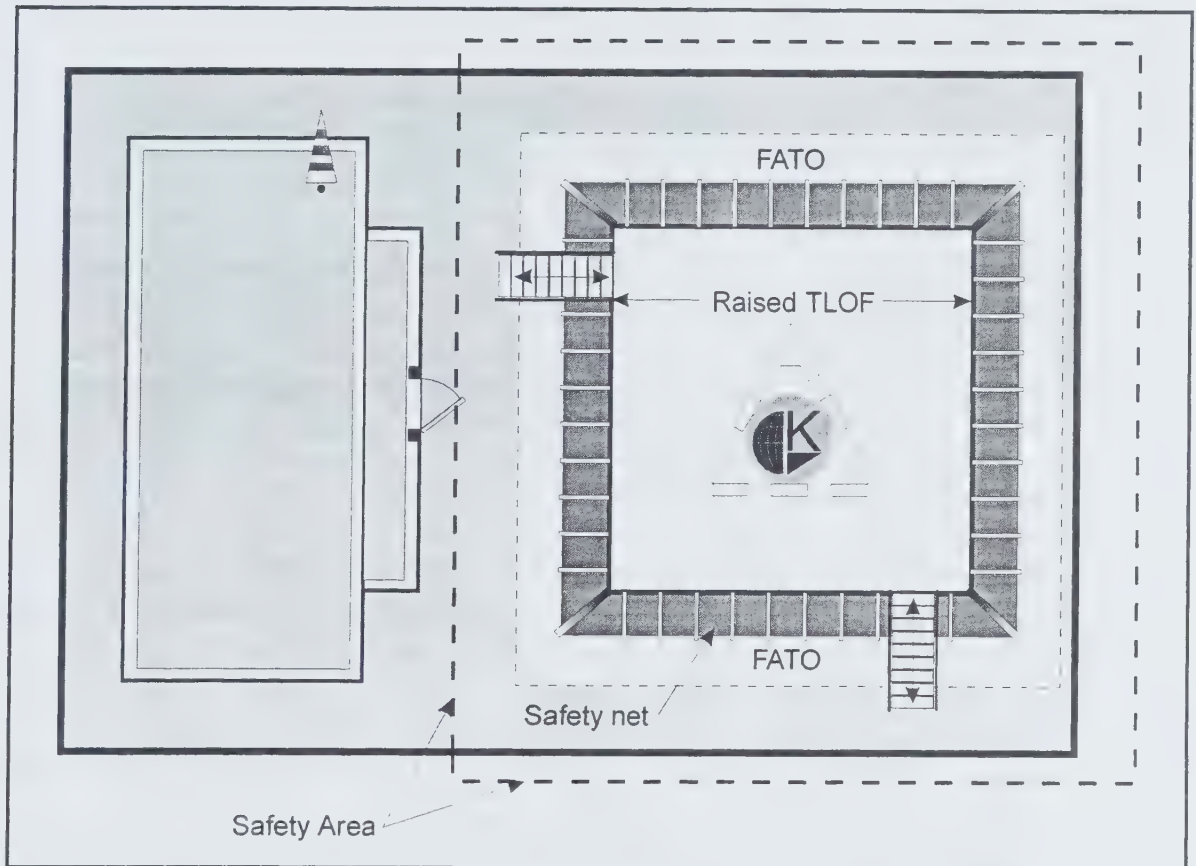


Figure 3-7. Elevated / Rooftop Heliport

(3) For the purposes of subsection 305.25(4) of the *Canadian Aviation Regulations*, the following constitutes the special requirements for Elevated/Rooftop heliports:

Information Note 1:

Elevated/rooftop heliports offer a viable alternative when a suitable ground level site is not attainable. Elevated/rooftop heliports normally have the advantage of being above the level of most obstacles that may obstruct the approach and take-off surfaces. In an obstacle-rich environment, consideration should be given for the availability of emergency landing areas within or along the approach and take-off surfaces.

Information Note 2:

Elevated/rooftop heliports that are classified as H1 or H2 under section 325.19 may be restricted to helicopters having specific performance capability based on available emergency landing areas.

Touchdown and Lift-off Areas (TLOF)

(a) in addition to the technical specifications already set out in paragraph 325.25(1)(e), the requirements for TLOF are the following:

- (i) the FATO at an elevated/rooftop heliport shall contain a TLOF,
- (ii) subject to subsection (4), where the size of the TLOF for a helicopter using the heliport is specified in the aircraft flight manual for the helicopter, the TLOF shall satisfy that requirement,
- (iii) the dimensions of a TLOF shall not be less than those required to accommodate a circle having a diameter equal to at least the overall length of the longest helicopter for which the heliport is certified,
- (iv) the TLOF shall be capable of supporting static and dynamic loads imposed by the largest helicopter for which the heliport is certified. The design static load is equal to the helicopter's maximum certificated take-off weight applied through the total contact area of the wheels or skids. The dynamic load is at least 150 per cent of the maximum certificated take-off weight transmitted through the main wheels or through the contact areas of a skid equipped helicopter,
- (v) drainage from the TLOF shall not allow flammable liquid to enter passenger-holding areas, access points, stairways, elevator shafts, ramps, hatches, or other openings,
- (vi) where, as specified in the HOM, no other measures have been taken to reduce fire hazards caused by fuel spillage, TLOF shall be surrounded by a peripheral berm designed to contain 100 per cent of the fuel capacity of the largest helicopter for which the heliport is certified, and
- (vii) where, as specified in the HOM, a raised edge surrounding a TLOF is provided to control fuel, the height of the raised edge shall not be higher than 7.5 cm;

Safety Nets

(b) the requirements for safety nets are the following:

- (i) if the TLOF of an elevated/rooftop heliport is on a platform elevated more than 75 cm (30 inches) above its surroundings or coincides with a building edge or a raised structure, the heliport operator shall provide a safety net,
- (ii) the safety net shall be at least 1.5 m in width and strong enough to support a weight of at least 122 kg per square metre, and
- (iii) the safety net shall not project above the level of the TLOF;

Helicopter Parking Positions

(c) in addition to the technical specifications already set out in paragraphs 325.25(1)(g) and (h), the requirements for helicopter parking positions are the following:

- (i) the helicopter parking position shall be located on the same structure as the associated FATO, and
- (ii) the location of the helicopter parking position in relation to a TLOF shall permit the transition between the helicopter parking position and the TLOF to be made in ground effect.

Special Requirements for Heliports Located on Aerodromes

(4) For the purposes of subsection 305.25(5) of the *Canadian Aviation Regulations*, the following constitutes the special requirements for heliports located on aerodromes,

Application of these Standards

(a) where a heliport is established as a separate facility on an aerodrome primarily designed to serve aeroplanes, the technical specifications set out in paragraphs 325.25(4)(b) to (e) apply in addition to those set out in subsections 325.25(1) and (2);

Final Approach and Take-off Areas (FATO)

(b) the requirements for a FATO, in respect of heliports located on aerodromes, are the following:

(i) where a FATO is located near a runway and simultaneous same direction visual meteorological conditions (VMC) operations exist, the separation distance between the FATO centre and the runway centre line shall not be less than the distance specified in Table 3-2, and

Table 3-2 Minimum separation distance between a FATO centre and the centreline of a non-instrument runway			
Runway code number	FATO width		
	Less than 20 m	20 m up to but not including 27 m	over 27 m
(1)	(2)	(3)	(4)
Code 1	90 m	150 m	210 m
Code 2	150 m	150 m	210 m
Code 3 and 4	210 m	210 m	210 m

- (ii) where simultaneous same direction instrument meteorological conditions (IMC) operations exist at a heliport located on an aerodrome, the separation distance between a FATO and an instrument runway shall not be less than the distance set out in TP 312 or any more recent applicable standard pertaining to the same subject;

Taxiways

(c) the requirements for taxiways, in respect of heliports located on aerodromes, are the following:

- (i) in the case of ground taxiway separation distances:

- (A) subject to subsection (3), the separation distance between a helicopter ground taxiway centre line and the centre line of a runway shall not be less than the distance specified in the applicable TP 312,

- (B) subject to subsection (3), the separation distance between a helicopter ground taxiway and a taxiway used by aeroplanes shall be at least the distance required to ensure no overlap of the respective taxiway strips, and

- (C) where, as specified in the HOM, the separation distance specified in subsection (1) or (2) cannot be met, procedures shall be in place to control the traffic for prevention of accidents, incidents and any other adverse effect on safety,

- (ii) in the case of taxi-holding positions:

- (A) where, as specified in the HOM, a helicopter ground taxiway or air taxiway is provided, a taxi-holding position or positions shall be established at the intersection of a taxiway with a FATO and the intersection of a taxiway with a runway,

- (B) where a taxi-holding position is established at the intersection with a runway, the taxi-holding position shall not be located closer than the distance specified in TP 312 or any more recent applicable standard pertaining to the same subject;

Aprons

(d) where, as specified in the HOM, a separate apron is provided for helicopter use, it shall permit the on and off loading of passengers and cargo and the servicing of helicopters without interfering with the aerodrome traffic;

Helicopter Parking Positions

(e) where a helicopter parking position is located on an apron that is also used by aeroplanes, the requirements are the following:

- (i) it shall be located so as to minimize the danger to parked aeroplanes posed by rotor downwash, and

- (ii) the separation distance between the edge of a helicopter parking position and an aeroplane stand shall not be less than the greater of either 1.5 times the overall length of the largest helicopter for which the parking position is certified or 18 m.

Special Requirements for H1 Heliports

(5) For the purposes of subsection 305.25(6) of the *Canadian Aviation Regulations*, the following constitute the special requirements for H1 heliports:

Final Approach and Take-off Areas (FATO)

- (a) the requirements for a FATO, in respect of H1 heliports, are the following:
- (i) the dimension of the FATO shall not be less than the dimensions specified in paragraph 325.25(1)(a),
 - (ii) the dimensions of the FATO of an H1 heliport shall not be less than the dimensions of the landing and take-off surface where specified in the aircraft flight manual for Category A operation for the helicopter type with the most critical performance characteristics the heliport is intended to serve, and
 - (iii) if the aircraft flight manual does not specify dimensions for the landing and take-off surface, the dimensions shall comply with the technical specifications set out in paragraph 325.25(1)(a);

Touchdown and Lift-off Areas (TLOF)

- (b) the requirements for a TLOF, in respect of H1 heliports, are the following:
- (i) the dimension of the TLOF shall not be less than the dimensions specified in paragraph 325.25(3)(a),
 - (ii) the dimensions of the TLOF of an H1 heliport shall not be less than the dimensions of the landing and take-off surface where specified in the aircraft flight manual for Category A operation for the helicopter type with the most critical performance characteristics the heliport is intended to serve, and
 - (iii) if the aircraft flight manual does not specify dimensions for the landing and take-off surface, the dimensions shall comply with the specifications set out in paragraphs 325.25(2)(a) or 325.25(3)(a), which ever are applicable to the heliport.

DIVISION VI — HELIPORT REQUIREMENTS — OBSTACLE LIMITATION SURFACES (OLS)

325.29 Restrictions and Removal of Obstacles

Information Note 1:

This Division establishes a series of obstacle limitation surfaces that define the limits to which objects may project into the airspace in order to:

- minimize the dangers presented by obstacles, either during an entirely visual approach or during the visual segment of an instrument approach; and*
- identify, by those limits, the point at which a heliport, due to safety concerns, is declared unusable.*

Information Note 2:

The requirements for obstacle limitation surfaces are based on the use for which a FATO is certified.

Information Note 3:

Where take-off and landings are conducted to or from a FATO in the same direction, the function of the obstacle limitation surface adjacent to that FATO may require more stringent requirements than those of a FATO served by more than one take-off and landing surface. If so, such stringent requirements would be described in the HOM.

Information Note 4:

In considering proposed construction, account should be taken of the possible future development of an instrument FATO and consequent requirements for more stringent obstacle limitation surfaces.

Information Note 5:

Obstacles penetrating the surface for instrument departure set out in the manual "Criteria for the Development of Instrument Procedure, TP 308" may impose limitations on helicopter operations (for example, departure may be authorized under visual meteorological conditions (VMC) only).

Requirements for the Establishment of Obstacle Limitation Surfaces

(1) When the operator of a certified heliport establishes the obstacle limitation surfaces for a non-instrument, non-precision or precision FATO, for the purposes of subsection 305.29(1) of the *Canadian Aviation Regulations*, the following requirements apply:

(a) in the case of approach surfaces:

(i) the limits of an approach surface shall comprise

(A) an inner edge horizontal and equal in length to the safety area, perpendicular to the centre line of the approach surface and located at the outer edge of the safety area, (see Figure 4-1),

(B) two side edges originating at the ends of the inner edge diverging uniformly at a rate from the inner edge set out in Table 4-1 or Table 4-2 that is applicable to the category of FATO for which it is certified, and

(C) an outer edge horizontal and perpendicular to the centre line of the approach surface and at a length from the inner edge set out in Table 4-1 or Table 4-2 that is applicable to the category of FATO for which it is certified,

(ii) the length of any portion of the approach surface shall be measured in the horizontal plane along the centre line of the approach path,

(iii) the width of the approach surface shall be measured in the horizontal plane,

Information Note:

The width of the approach surface at any point can be found by adding the products of the length (i.e. distance from the inner edge) and the divergence (either side) to the length of the inner edge.

- (iv) the elevation of the inner edge shall be the elevation of the FATO boundary at the point on the inner edge that is intersected by the centre line of the approach surface,
- (v) subject to the technical specifications set out in paragraphs 325.29(2)(b) and (c) the slope of the approach surface shall be in accordance with the first section and the second section set out in Table 4-1 or Table 4-2 and shall be measured in the vertical plane containing the centre line of the surface,

Information Note:

The height of the surface is the product of the length of the portion from the point of intersection to the inner edge and the slope.

- (vi) the centre line of the approach surface shall define the approach path and shall be a straight line or an arc of constant radius or a combination of a straight line or an arc of constant radius, and

Information Note:

Technical specifications applicable to a curved approach surface for a non-instrument FATO are found in paragraph 325.29(3)(a).

- (vii) a mobile object shall not be permitted above an approach surface unless procedures are specified in the HOM to ensure the object is removed during approach and departure operations;
- (b) in the case of take-off surfaces:
- (i) the limits of the take-off surface shall comprise
 - (A) an inner edge horizontal and equal in length to the width of the safety area, perpendicular to the centre line of the take-off surface and located at the outer edge of the safety area or clearway,
 - (B) two sides originating at the ends of the inner edge diverging uniformly at a rate from the inner edge set out in Table 4-1, and
 - (C) an outer edge horizontal and perpendicular to the centre line of the take-off surface and at a length from the inner edge set out in Table 4-1 for visual meteorological conditions (VMC),
 - (ii) the width of the take-off surface shall be measured in the horizontal plane,

Information Note:

The width of the take-off surface at any point can be found by adding the products of the length (i.e. distance from the inner edge) and the divergence (either side) to the length of the inner edge.

- (iii) the elevation of the inner edge shall be the higher of
 - (A) the elevation of the FATO boundary nearest the midpoint of the inner edge, or
 - (B) the highest elevation of terrain or objects located within the clearway,
- (iv) subject to the technical specifications set out in paragraphs 325.29(2)(b) and (c), the slope of the take-off surface shall be in accordance with the first section and the second section set out in Table 4-1 and shall be measured on the centre line of the departure path,
- (v) the surface of the slope of the take-off surface shall remain horizontally normal to the centre line of the departure path,

Information Note:

The height of the take-off surface at any point can be found by establishing a horizontal line through the point and normal to the nominal approach path. The height of the surface is the product of the length of the portion from the point of intersection to the inner edge and the slope.

- (vi) the centre line of the approach surface shall define the approach path and shall be a straight line or an arc of constant radius or a combination of a straight line or an arc of constant radius, and

Information Note:

Technical specifications applicable to a curved take-off surface for a non-instrument FATO are found in paragraph 325.29(2)(a).

- (vii) a mobile object shall not be permitted above a take-off surface unless procedures are specified in the HOM to ensure the object is removed during approach and departure operations;

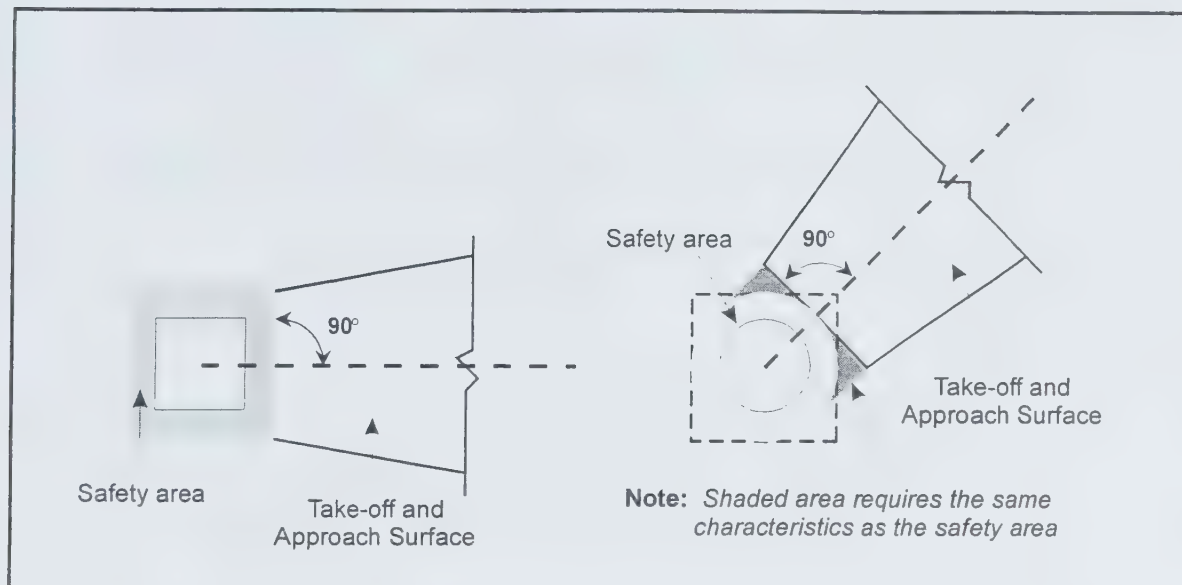


Figure 4-1. Obstacle limitation surfaces for a non-instrument FATO

(c) in the case of transitional surfaces:

Information Note:

A transitional surface is a complex surface along the side of the safety area and part of the side of the approach/take-off surface that slopes upwards and outwards to a height specified in Table 4-1 or Table 4-2 that is applicable to the category of FATO for which it is certified.

(i) the limits of the transitional surface shall comprise

(A) a lower edge beginning at a point on the side of the approach surface where the approach/take-off surface is at a height above its inner edge, set out in Table 4-1 or Table 4-2, and extending down the side of the approach/take-off surface to the inner edge of the approach/take-off surface and from there along the edge of the safety area, and

(B) an upper edge located at a height, set out in Table 4-1 or Table 4-2, above the heliport assigned elevation,

(ii) the elevation of a point on the lower edge shall be

(A) along the side of the approach surface, equal to the elevation of the approach surface at that point, and

(B) along the safety area, equal to the elevation of the centre line of the FATO opposite that point,

Information Note:

As a result of the above requirement, the transitional surface along a curved approach surface is also curved.

- (iii) the slope of a transitional surface shall be measured in a vertical plane perpendicular to the extended centre line of the FATO in accordance with Table 4-1 or Table 4-2, and
- (iv) a mobile object shall not be permitted above a transitional surface unless procedures are in place, as specified in the HOM, to ensure the object is removed during approach and departure operations;

(d) in the case of other obstacles:

- (i) where an aeronautical evaluation is performed as part of the continued certification process and is afterwards included in the HOM, and it indicates that an obstacle may endanger aircraft located on the movement area or in the air in the immediate vicinity of the heliport, it shall be removed in so far as is practicable or be marked and/or lighted in accordance with Standard 621.19, and

Information Note:

In certain circumstances, obstacles that do not project above any of the surfaces set out in subsection 325.29(2) may constitute a hazard to aircraft as, for example, where there are one or more isolated obstacles in the vicinity of a heliport such as a high chimney or a high tension tower.

- (ii) the following clearance is required above a transportation corridor that is underneath an obstacle limitation surface:

(A) above the top of the rails of a railway, at least 6 m,

(B) above the crown of a road, 4.3 m, and

(C) above a waterway, river, or canal, the clearance established by an aeronautical evaluation is performed as part of the continued certification process and is afterwards included in the HOM.

Special Requirements for Non-instrument FATOs

(2) For the purposes of subsection 305.29(1) of the *Canadian Aviation Regulations*, the special requirements in respect of obstacle limitation surfaces for non-instrument FATOs are the following:

- (a) in the case of approach or take-off surfaces:

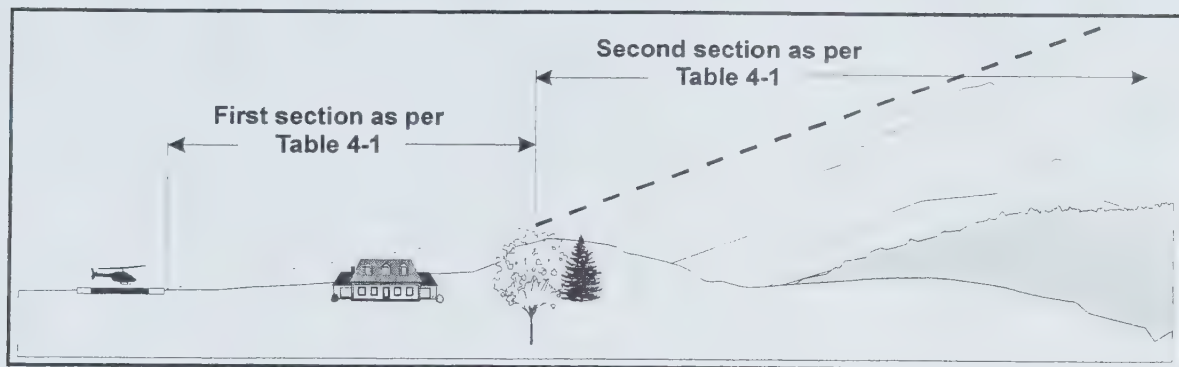


Figure 4-2. Approach and take-off surface for non-instrument heliport

- (i) a fixed object shall not be permitted above an approach or take-off surface of a non-instrument FATO except for a fence or barrier that complies with the applicable technical specifications provided in subsection 325.43(2),
- (ii) where established, as specified in the HOM, a curved approach or take-off surface shall not contain more than one curved portion,

Information Note:

Curved approach is normally established at a non-instrument FATO where it is necessary to avoid obstacles, terrain, noise sensitive areas, or to utilise the airspace above public lands (e.g. freeways, rivers, golf courses).

- (iii) a curved portion of an approach or take-off surface shall not allow a change of direction greater than 90 degrees,
- (iv) where, as specified in the HOM, a curved portion of approach or take-off is provided
 - (A) the sum of the radius of arc defining the centre line of the approach or take-off surface and the length of the straight portion originating at the inner edge shall not be less than 575 m, and
 - (B) the radius of arc defining the centre line of the approach or take-off surface shall not in any portion of the approach be less than 270 m in accordance with Figure 4-3, and
- (v) an approach or take-off surface incorporating a curved portion shall be established where landmarks such as geographical points or other visual references are available;

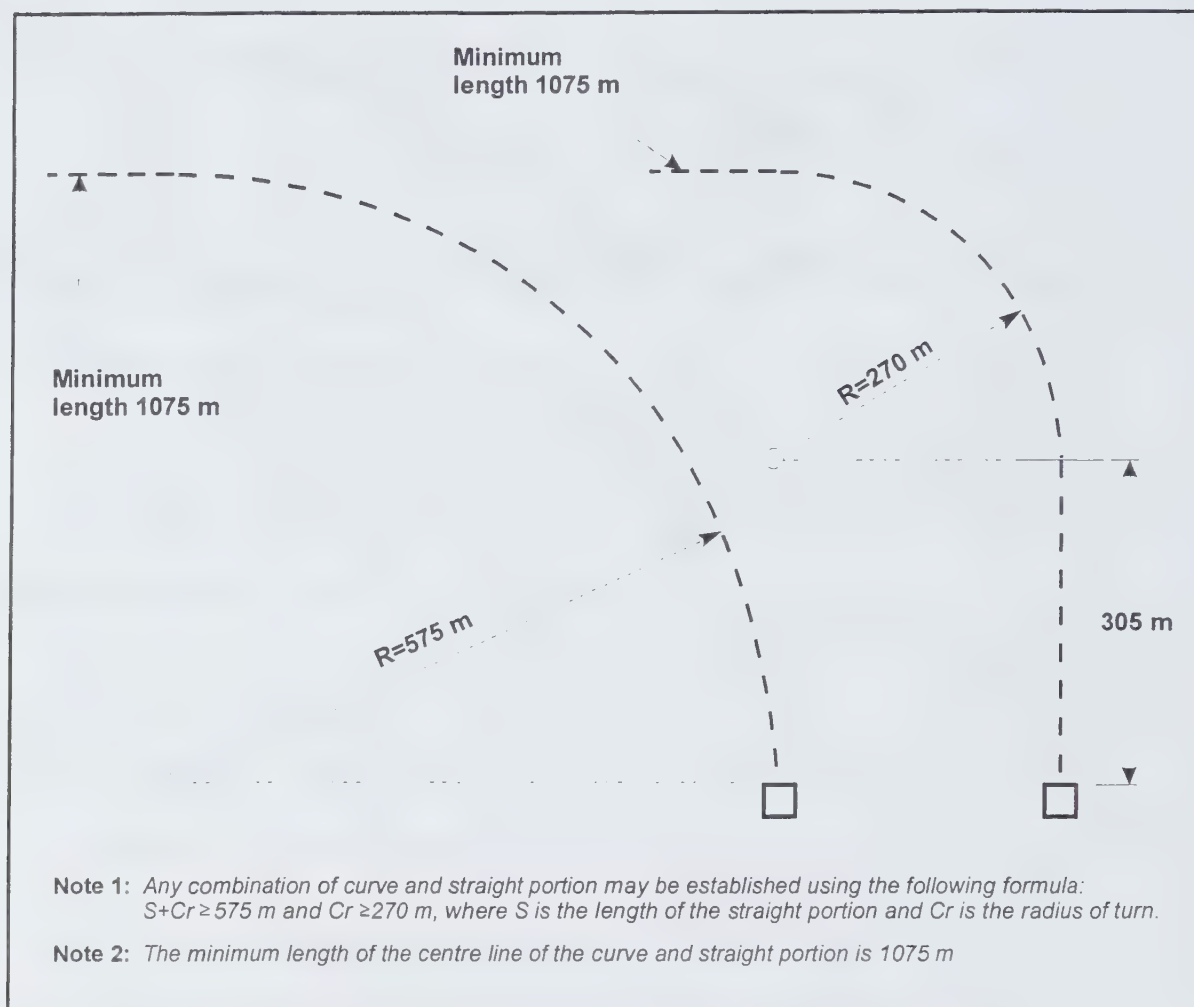


Figure 4-3. Curved approach and take-off surface for non-instrument FATO

(b) in the case of transitional surfaces:

- (i) no object, other than a fence that complies with the technical specifications set out in subsection 325.43(2), shall project into a transitional surface established in accordance with Figure 4-4A and B,
- (ii) where a facility is served by at least two approach and departure paths separated by no less than 135 degrees from their centre lines, a transitional surface is not required as demonstrated in Figure 4-4C, and
- (iii) an object located outside the transitional surface shall not be located closer than 3 m from the safety area;

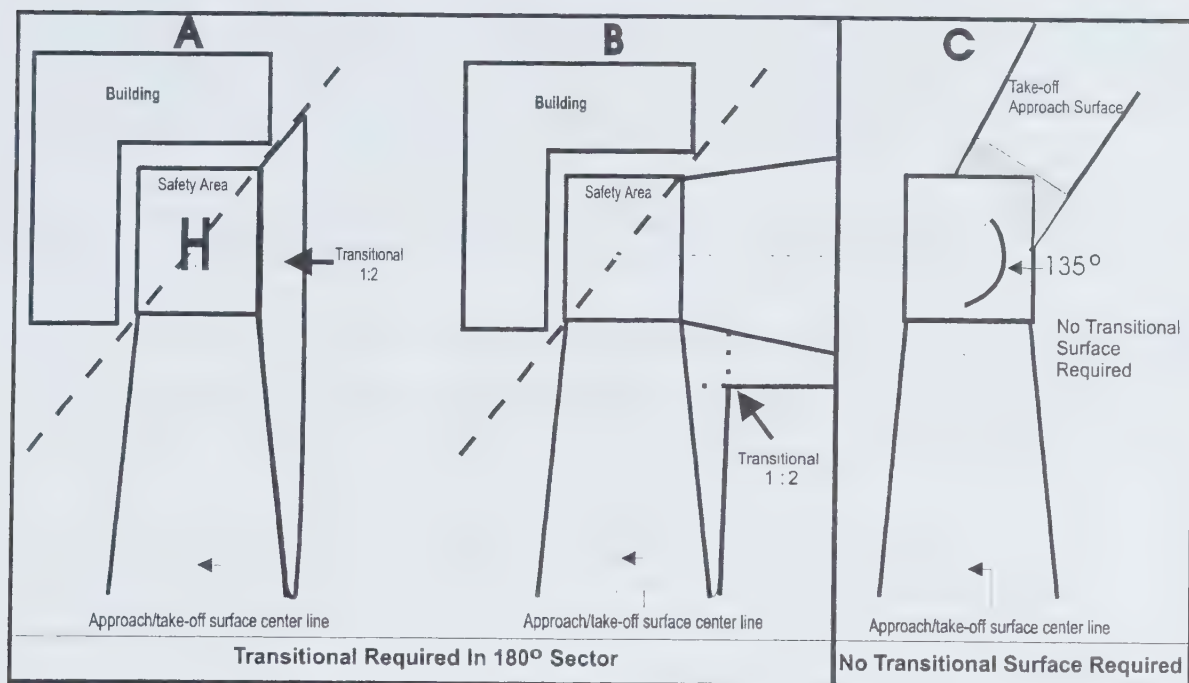


Figure 4-4. Transitional surface for non-instrument FATO

Special Requirements for Non-instrument FATOs in respect of H1 Heliports

(3) For the purposes of subsection 305.29(2) of the *Canadian Aviation Regulations*, the requirements in respect of approach or take-off surfaces for non-instrument FATOs, are the following:

- (a) in the case of approach or take-off surfaces, an H1 heliport shall comply with the following requirements respecting its OLS instead of the technical specifications provided in subparagraphs 325.29(1)(a)(v) and (1)(b)(iv):
 - (i) the take-off and approach OLS shall commence at the edge of the safety area and shall continue in a line that links the maximum elevation points of all critical obstacles within the approach/departure path,
 - (ii) a survey of the approach/departure path area that determines obstacle information shall be carried out by the heliport operator at least once every five years unless no new obstacles have been established in the approach/departure path area during the five-year period and a report to that effect is made to the certifying authority,
 - (iii) the obstacle survey shall be updated each time new construction is carried out that will penetrate the slope of the OLS established under subparagraph 325.29(3)(c)(i),

(iv) the approach/departure path area shall consist of a quadrilateral area on the surface of the earth lying directly below the approach/take-off surface, with the point of origin at the end of the area declared suitable for take-off as specified in the HOM, and extend at the lessor of the point beyond where no obstacle that would adversely affect safety exists or 625 m, and

(v) the width of the approach/departure path area at its point of origin shall be the same as the width of the safety area and increase at the rate of $0.15D$ where 'D' is the distance from the point of origin;

Special Requirements for Non-instrument FATOs in respect of H2 Heliports

(4) For the purposes of subsection 305.29(4) of the *Canadian Aviation Regulations*, the special requirements for obstacle limitation surfaces, in respect of approach or take-off surfaces for non-instrument FATOs, are the following:

(a) in the case of approach or take-off surfaces, notwithstanding the technical specifications provided in paragraphs 325.29(1)(a) and (b), the slope of the first section in Table 4-1 of the approach and take-off OLS for an H2 heliport shall not be higher than twice the requirements set out in Table 4-1 but, in any case, not more than 16% (1:6.25).

Special Requirements for Instrument FATOs

(5) For the purposes of subsection 305.29(5) of the *Canadian Aviation Regulations*, the special requirements in respect of obstacle limitation surfaces for an instrument FATO, are the following:

(a) a fixed obstacle shall not be permitted above the approach, take-off or transitional surfaces of a non-precision or precision FATO except for a frangibly mounted object on the safety area that is required as specified in the HOM for air navigation purposes. See Figure 4-5 and Figure 4-6.

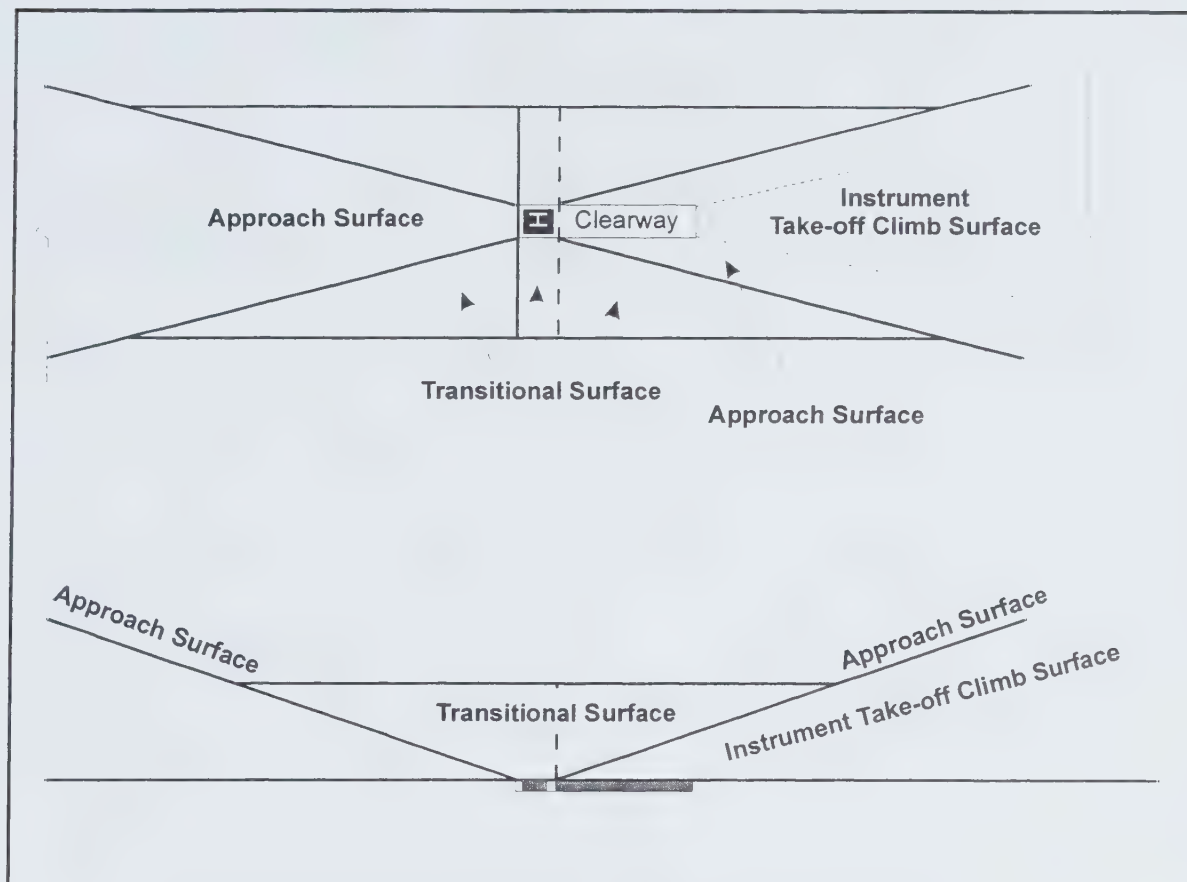


Figure 4-5. Example of obstacle limitation surfaces for a non-precision FATO

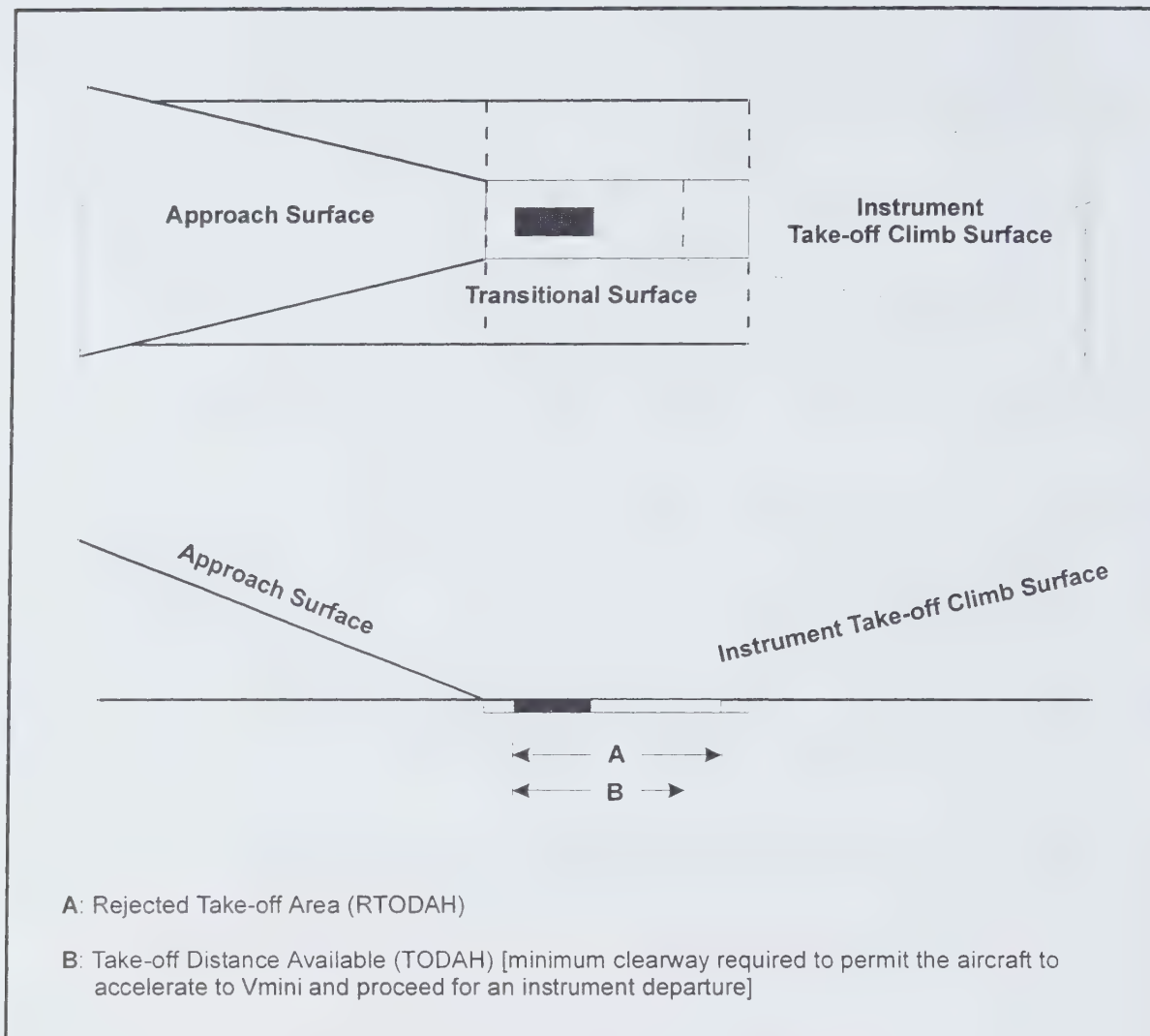


Figure 4-6. Example of obstacle limitation surfaces for a precision FATO

**Table 4-1 Dimensions and slopes of obstacle
limitation surfaces -
non-instrument FATOs**

SURFACE and DIMENSIONS	NUMBER OF APPROACH/DEPARTURE PATHS AVAILABLE			
	Single		2 or more	
	FATO only	FATO + 65m obstacle free zone	FATO only	FATO + 85m obstacle free zone
(1)	(2)	(3)	(4)	(5)
APPROACH SURFACE and TAKE-OFF SURFACE:				
Length of inner edge	Width of safety area	Width of safety area	Width of safety area	Width of safety area
Location of inner edge	Safety area boundary	Safety area boundary	Safety area boundary	Safety area boundary
Divergence:				
Day use only	10 %	10 %	10 %	10 %
Night use	15 %	15 %	15 %	15 %
First Section :				
Length	245 m	245 m	245 m	245 m
Slope	6 % (1:16.6)	8 % (1:12.5)	8 % (1:12.5)	10 % (1:10)
Second Section:				
Length	830 m	830 m	830 m	830 m
Slope	16 % (1:6.25)	16 % (1:6.25)	16 % (1:6.25)	16 % (1:6.25)
Total Length from inner edge	1075 m	1075 m	1075 m	1075 m
TRANSITIONAL SURFACE:				
Slope	50 % (1:2)	50 % (1:2)	50 % (1:2)	50 % (1:2)
Height	45 m	45 m	45 m	45 m

**Table 4-2 Dimensions and slopes of obstacle
limitation surfaces - Instrument FATOs**

	Approach Type		
	Non- Precision	Precision 3° approach	Precision 6° approach
(1)	(3)	(4)	(5)
APPROACH SURFACE			
Width of inner edge	Width of safety area	Width of safety area	Width of safety area
Location of inner edge	safety area boundary	safety area boundary	safety area boundary
Divergence	15 %	15 %	15 %
Length (minimum)	2500 m	10000 m	8500 m
Slope (maximum)	5 % (1:20)	3 % (1:34)	5.9 % (1:17)
TRANSITIONAL SURFACE:			
Slope (maximum)	20 % (1:5)	14.3 % (1:7)	14.3 % (1:7)
Height	45 m	45 m	45 m

DIVISION VII — HELIPORT REQUIREMENTS — VISUAL AIDS FOR AIR NAVIGATION

325.31 *Visual Aids for Air Navigation*

Wind Direction Indicators

(1) For the purposes of subsection 305.31(1) of the *Canadian Aviation Regulations*, in respect of wind direction indicators, the technical requirements are the following:

(a) as specified in section 305.31 of the *Canadian Aviation Regulations*, a heliport shall be equipped with at least one wind direction indicator;

(b) where a heliport is located among buildings or other large structures and as specified in the HOM if the wind direction differs sufficiently to adversely affect aviation safety, from one part of the heliport to another, multiple wind direction indicators shall be provided;

(c) a wind direction indicator shall be located so that it

(i) indicates the wind conditions over the FATO area,

(ii) is free from the effects of airflow disturbances caused by nearby objects or rotor downwash,

- (iii) is visible from a helicopter in flight, in a hover or on the movement area, and
- (iv) is clear of the safety area, the approach/take-off surfaces, and any transitional surface provided;

(d) wind direction indicators shall be truncated cones made of light-weight fabric with the following minimum dimensions:

	Surface Level Heliports	Elevated/Rooftop Heliports
Length	2.4 m	1.2 m
Diameter (larger end)	0.6 m	0.3 m
Diameter (smaller end)	0.3 m	0.15 m

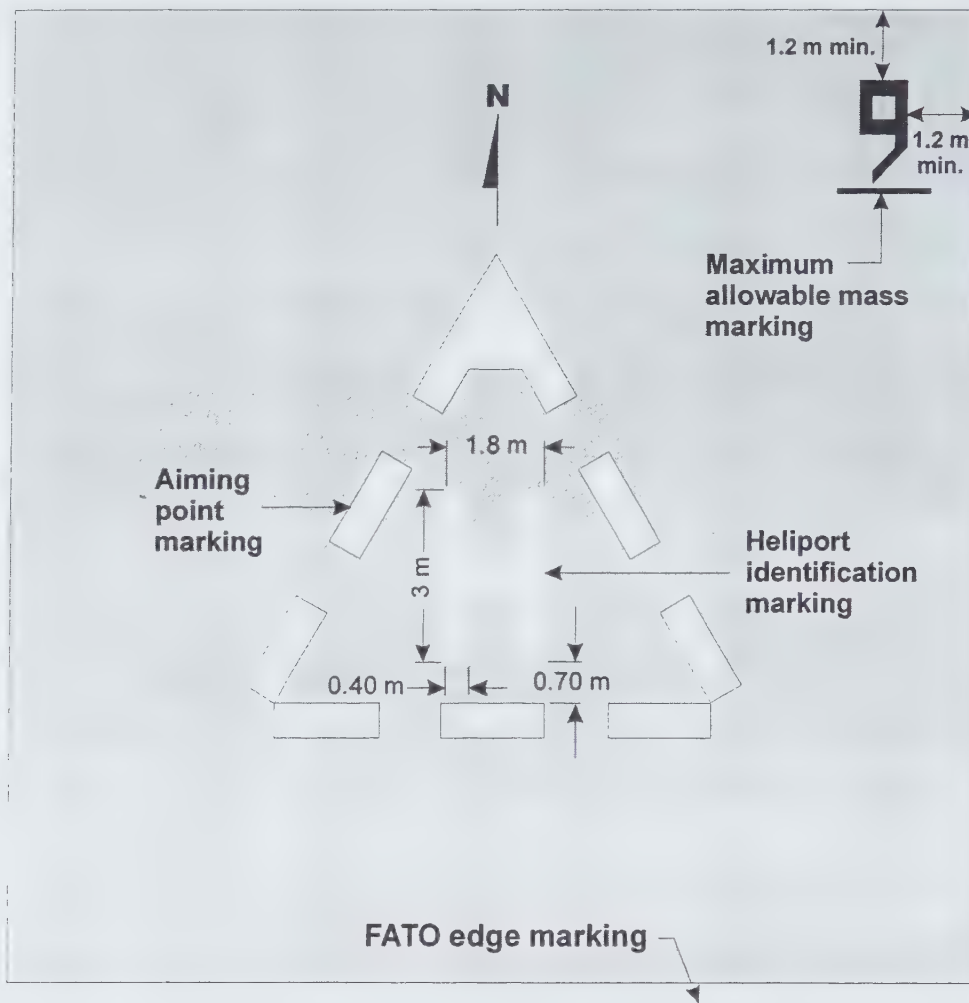
(e) the colour of the wind direction indicator shall be selected and specified in the HOM, so as to make it clearly visible and understandable from a height of at least 200 m (650 ft) above the heliport having regard to background; and

Information Note:

It is recommended that a single colour, preferably orange, be used. Where a combination of two colours is required to make the wind direction indicator conspicuous against changing backgrounds, they should preferably be orange and white or red and white and should be arranged in five alternate bands with the first and last band being the darker colour.

(f) a wind direction indicator at a heliport that is certified for use at night shall be illuminated.

Markings



Note: The triangle, letter "H" and FATO boundary markings are white and may be edged with a 15 cm black border to improve contrast

Figure 5-1. Example of heliport markings

Information Note:

Markings are described in this Division as solid areas.

(2) For the purposes of subsection 305.31(2) of the *Canadian Aviation Regulations*, the requirements in respect of heliport markings, are the following:

(a) in the case of heliport identification markings:

- (i) a heliport identification marking shown in Figure 5-1 and Figure 5-2 shall be provided on a TLOF located within a FATO,
- (ii) a heliport identification marking shall be provided where a helicopter parking position marking is provided,
- (iii) where used in conjunction with an aiming point marking, a heliport identification marking shown in Figure 5-1 shall be centred within the aiming point marking,
- (iv) where used in conjunction with an elongated FATO designation marking, the heliport identification marking shall be located as shown in Figure 5-5,
- (v) where used in conjunction with a hospital identification marking, the heliport identification marking shall be located as shown in Figure 5-3,
- (vi) where used in conjunction with a helicopter parking position marking, a heliport identification marking shall be centred within the inner ring of the helicopter parking position marking as shown in Figure 5-8 and Figure 5-9,

Information Note:

Where used in conjunction with a helicopter parking position marking, the heliport identification marking should be oriented with the cross arm of the H at right angles to the longitudinal axis of the preferred parked position.

- (vii) subject to subparagraph (viii) below, subparagraphs 325.31(2)(o)(iii) and (iv), a heliport identification marking shall consist of a capital letter H,
- (viii) where the heliport identification marking is to be applied at a private heliport other than a hospital heliport, it shall consist of either a capital letter H or the company logo,
- (ix) the capital letter H shall be in the form and proportion shown in Figure 5-1,
- (x) the minimum dimensions of the capital letter H shall be as shown in Figure 5-1 except that
 - (A) where used in conjunction with a FATO designation marking, the minimum dimensions shall be increased by a factor of three, or
 - (B) where used in conjunction with a helicopter parking position marking, the minimum dimensions shall be one half the dimensions shown in Figure 5-1;

- (xi) the colour used to mark the capital letter H shall
 - (A) be white when located within a FATO,
 - (B) be red when used in conjunction with a hospital identification marking, and
 - (C) be yellow when used on a helicopter parking position, and
- (xii) the dimensions of a company logo or any other private identification marking shall be contained within a circle not larger than the inside dimensions of the aiming point marking;

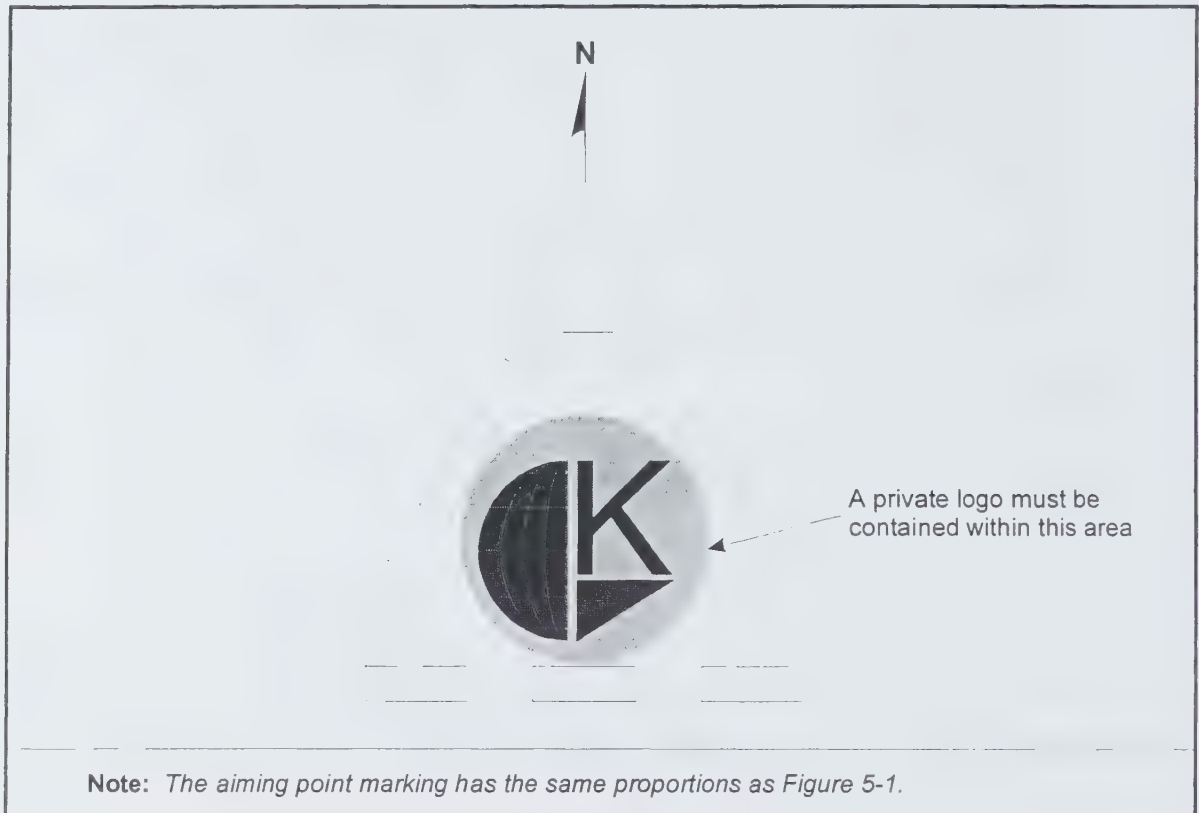


Figure 5-2. Private heliport identification marking

- (b) in the case of hospital heliport identification markings:
 - (i) a hospital heliport identification marking as shown in Figure 5-3 shall be provided where a heliport serves a hospital,
 - (ii) the hospital heliport identification marking shall be centred on the FATO,
 - (iii) the hospital heliport identification marking shall consist of a cross marking as illustrated in Figure 5-3,

(iv) the cross shall contain a red capital letter H having the form and the proportion shown in Figure 5-1,

(v) the cross shall be either a solid white area as depicted in Figure 5-3A, or an area marked as depicted in Figure 5-3B,

Information Note:

It has been found that, on surfaces of light colour, the conspicuity of the white cross can be improved by outlining it with a 15 cm (6 inches) red border.

(vi) the dimensions of the cross shall not be less than those shown in Figure 5-3,

(vii) when the marking is increased in size, the cross and the H markings shall be increased proportionally, and

(viii) the capital letter H and the white cross shall be oriented with the magnetic north, except in areas of compass unreliability where it shall be oriented with the true north;

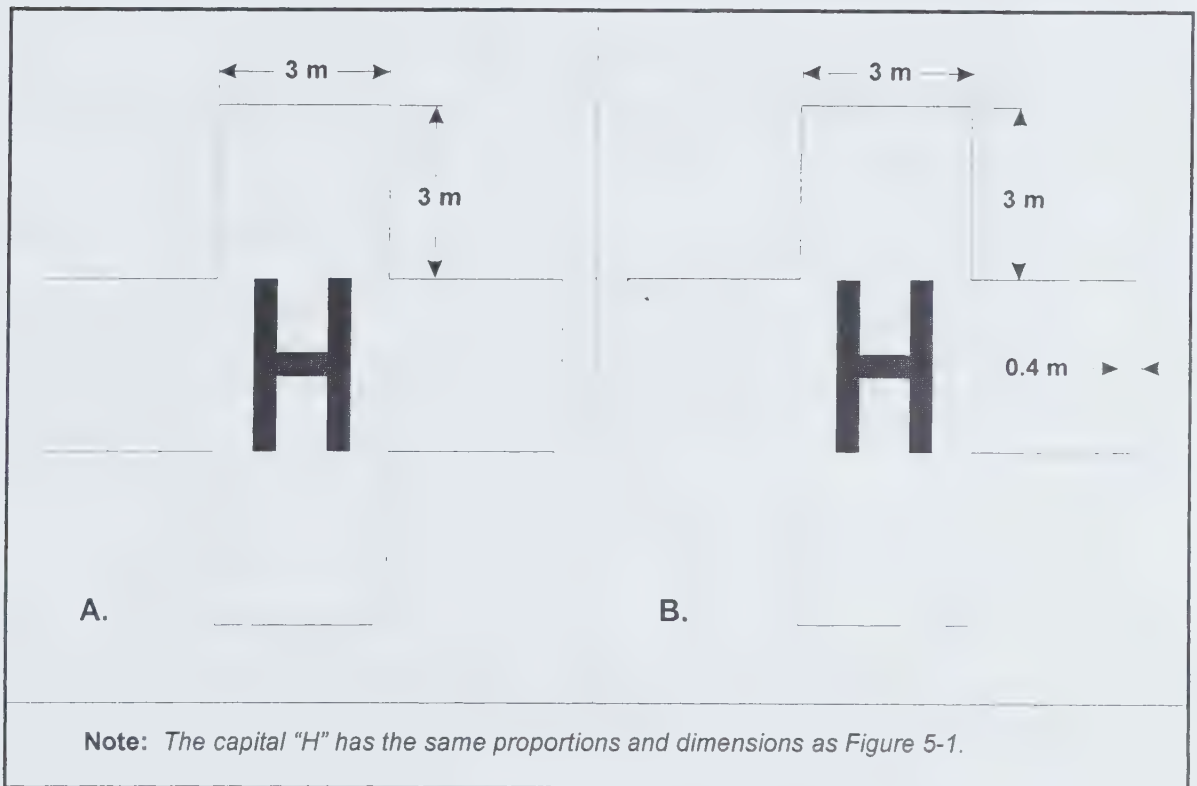


Figure 5-3. Hospital identification marking

(c) in the case of aiming point markings:

(i) a FATO shall be provided with an aiming point marking as shown in Figure 5-4 unless

(A) a FATO designation or hospital identification marking is provided,

(B) the surface of the FATO makes it physically impossible to mark the aiming point (e.g. a FATO located on water), or

(C) the FATO is primarily used for pilot training and is large enough so that pilots are not required to land at a specific location on the FATO,

(ii) where, as specified in the HOM, an aiming point is not provided, information regarding the location of the FATO shall be published in the *Canada Flight Supplement* (CFS),

(iii) the aiming point marking shall be centred within a FATO,

(iv) where provided on a FATO containing a TLOF, the aiming point marking shall consist of dashed white lines forming an equilateral triangle,

(v) where provided on a FATO that, as specified in the HOM, does not contain a TLOF, the aiming point marking shall consist of solid yellow lines forming an equilateral triangle,

(vi) the form, proportion, and minimum dimensions for an aiming point marking shall be as shown in Figure 5-4, and

(vii) the aiming point marking shall be aligned with the magnetic north except in areas of compass unreliability where it shall be oriented with the true north. The method of indicating magnetic or true north alignment shall be by filling in one interior angle as depicted in Figure 5-4;

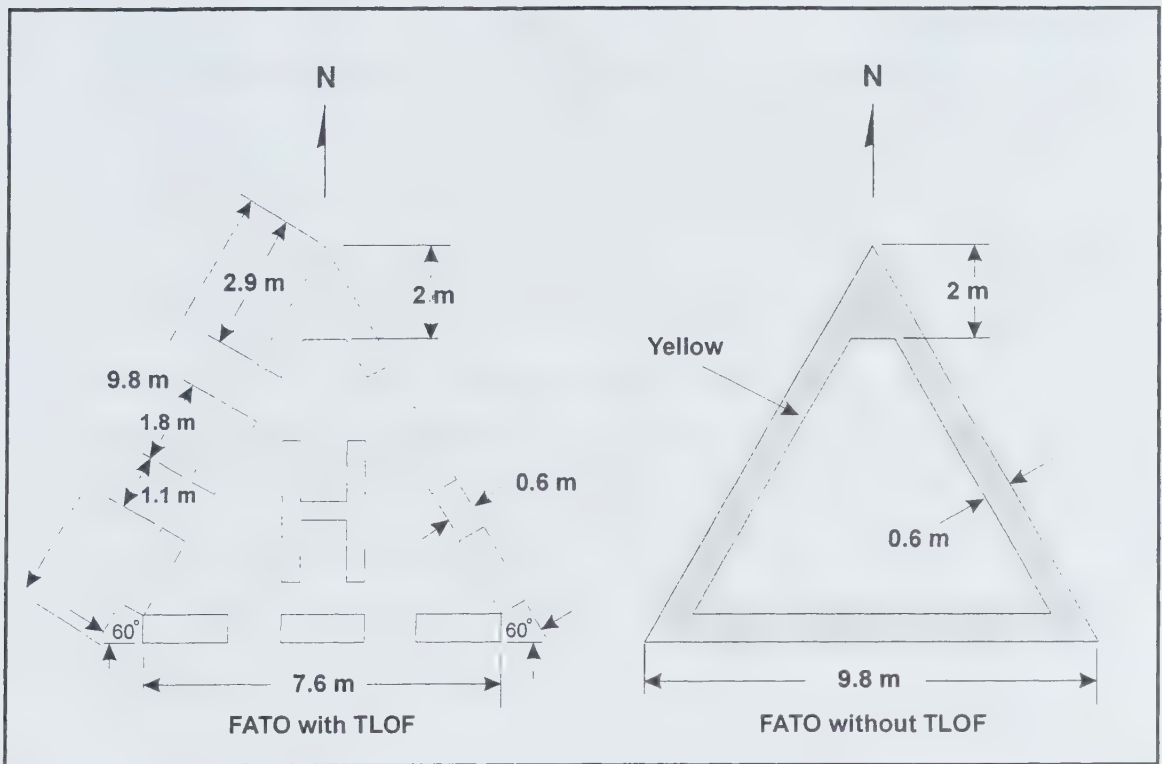


Figure 5-4. Aiming point marking dimension

(d) in the case of FATO area edge marking:

(i) FATO area edge marking shall be provided at a heliport unless

(A) the FATO boundaries are easily identifiable,

(B) FATO area markers are provided in accordance with the technical specifications set out in subsection 325.35(2), or

(C) the FATO is

(I) located on an airport, or is primarily used for pilot training, and

(II) the information regarding the location of the FATO is published in the *Canada Flight Supplement* (CFS),

(ii) FATO area edge marking shall be located on the boundaries of the FATO, and

Information Note:

The overall FATO dimensions are measured from the outside edge of the FATO marking.

(iii) FATO area edge marking shall be a solid white line not less than 0.60 m in width;

Information Note:

On surfaces of light colour, the conspicuity of the white markings can be improved by outlining them with a 15 cm (6 inches) black or red border.

(e) in the case of FATO designation markings:

- (i) a FATO designation marking shall be provided on a paved elongated FATO of 100 m in length or more,
- (ii) a FATO designation marking shall be located at the beginning of the FATO as shown in Figure 5-5,
- (iii) a FATO designation marking shall consist of a two-digit number,
- (iv) the two-digit number shall be the whole number nearest the 10 degrees of the magnetic north when viewed from the direction of approach,
- (v) when the above rule results in a single digit number, it shall be preceded by a zero,
- (vi) if a heliport is located within an area of compass unreliability, true azimuth and not magnetic azimuth shall be used to determine the designation marking, and
- (vii) in the case of parallel FATOs, each number shall be supplemented by the letters "L" or "R" in the order shown from left to right when viewed from the direction of approach;

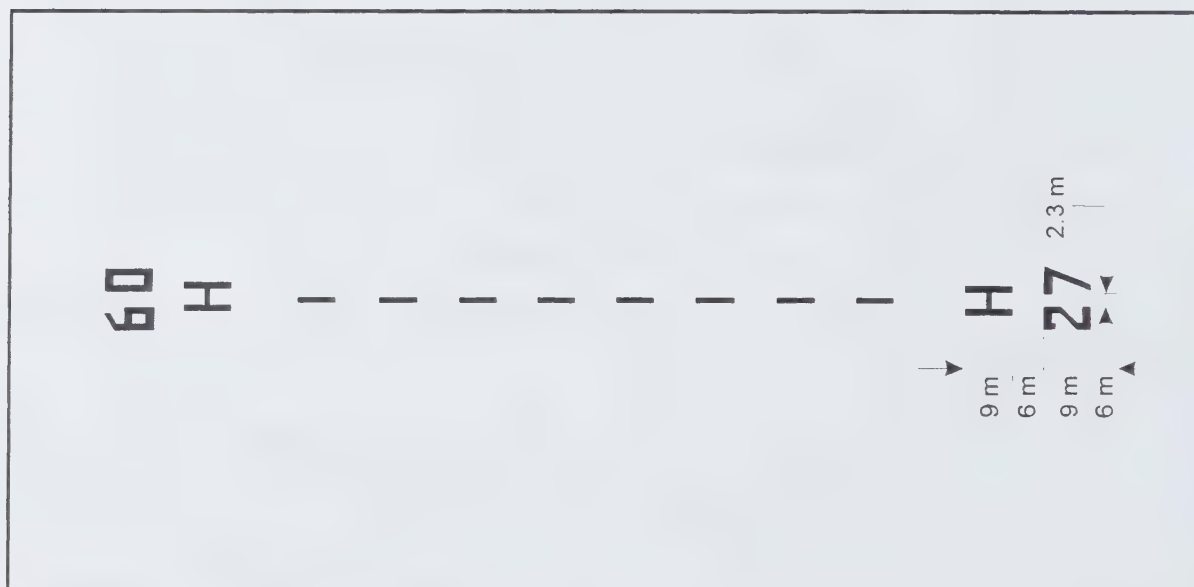


Figure 5-5. Elongated FATO designation marking

(f) in the case of FATO centre line markings:

- (i) a FATO centre line marking shall be provided on a paved elongated FATO of 100 m in length or more,
- (ii) a FATO centre line marking shall be located along the centre line of the FATO between the FATO designation marking as shown in Figure 5-5,
- (iii) a FATO centre line marking shall consist of a line of uniformly spaced stripes and gaps. The length of a stripe plus a gap shall not be less than 6 m or more than 60 m, and
- (iv) the width of the stripes shall be at least 0.6 m;

(g) in the case of approach/take-off direction indicator markings

(i) subject to subparagraph (ii) below, an approach /take-off direction indicator marking shall be provided where

(A) specific approach and departure paths are required to be indicated to pilots (i.e. single approach and departure path), or

(B) obstacle clearance, noise abatement procedure or traffic control procedure requires that a specific direction be flown,

(ii) where, as specified in the HOM, a FATO is located on the water or its edges are close enough to a body of water to create a hazard or to generate a risk to safety, or where the edges of a FATO are nearly coincidental with the edge of an elevated/rooftop heliport and it is impracticable to establish the approach/take-off direction indicator marking, guidance such as landmarks or other visual references shall be provided to designate a specific approach and departure path. These visual references shall be identified in the *Canada Flight Supplement* (CFS),

(iii) an approach/take-off direction indicator marking shall be located outside the FATO edge on the approach/take-off path centre line,

(iv) an approach/take-off direction indicator marking shall consist of a line with an arrowhead at each end in the form and proportion shown in Figure 5-6,

(v) the length of the approach/take-off direction indicator marking shall not be less than one-half the width or the diameter of the associated FATO, and

(vi) an approach/take-off direction indicator marking shall be of an easily identifiable colour that contrasts with the surrounding surface;

Information Note:

On surfaces of light colour, the conspicuity of the white marking can be improved by outlining it with a 15 cm (6 inches) black or red border.

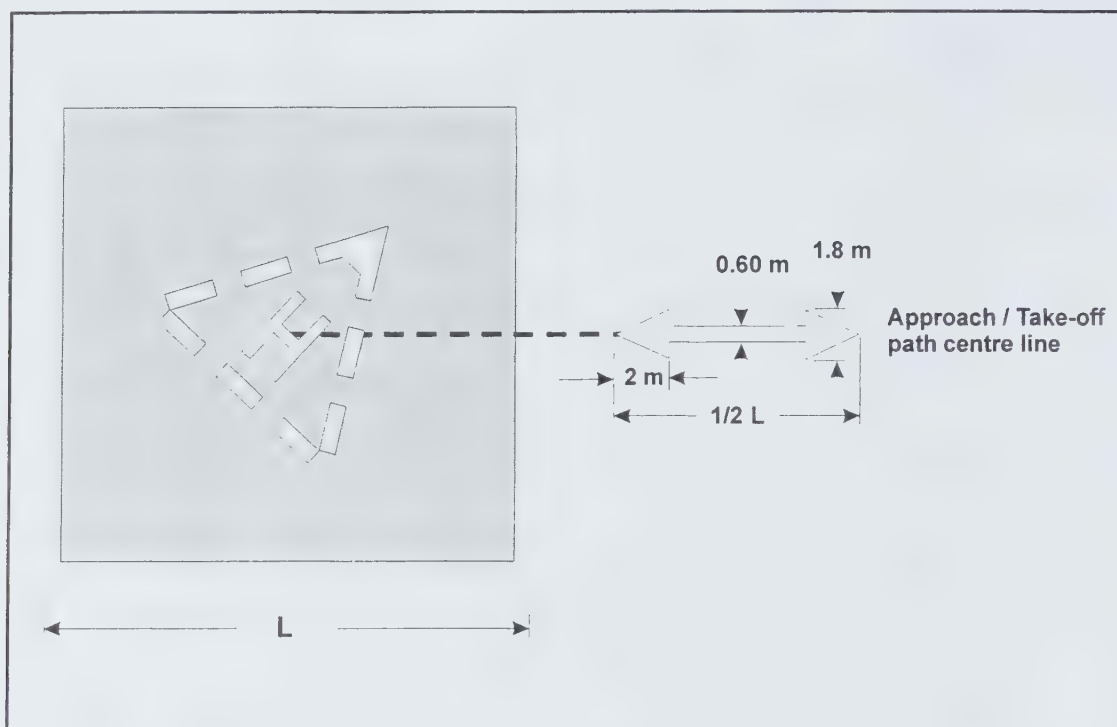


Figure 5-6. Approach and take-off direction indicator marking

(h) in the case of a TLOF area edge marking:

- (i) a TLOF area edge marking shall be provided on an elevated/rooftop heliport,
- (ii) a TLOF area edge marking shall be provided on a TLOF other than one located on an elevated/rooftop heliport if the perimeter of the TLOF area is not easily identifiable,
- (iii) where the size of the FATO and the TLOF is the same, only the FATO area edge marking is required,
- (iv) the TLOF area edge marking shall be located along the perimeter of the TLOF area, and

Information Note:

The overall TLOF dimensions are measured from the outside edge of the TLOF marking.

- (v) a TLOF area edge marking shall consist of a continuous white line with a width of 30 cm;

Information Note:

On surfaces of light colour, the conspicuity of the white marking can be improved by outlining it with a 15 cm (6 inches) black or red border.

(i) in the case of maximum allowable helicopter weight markings:

- (i) a maximum allowable helicopter weight marking that indicates the maximum allowable helicopter weight in thousands of pounds shall be displayed on an elevated/rooftop heliport,
- (ii) the marking shall be located so as to be visible from the preferred approach direction, as specified in the HOM, taking into account the prevailing wind at the heliport and positioned from the FATO edge as shown in Figure 5-1,
- (iii) the marking shall consist of one or two digits having the form and proportions shown in Figure 5-7,

Information Note 1:

Figure 5-1 refers to maximum allowable “mass” marking.

Information Note 2:

A line may be placed under the numerals to preclude the marking from being misread.

- (iv) the height of an individual numeral shall not be less than 1.8 m, and
- (v) the maximum allowable weight number shall be a colour that contrasts with the surrounding surface,

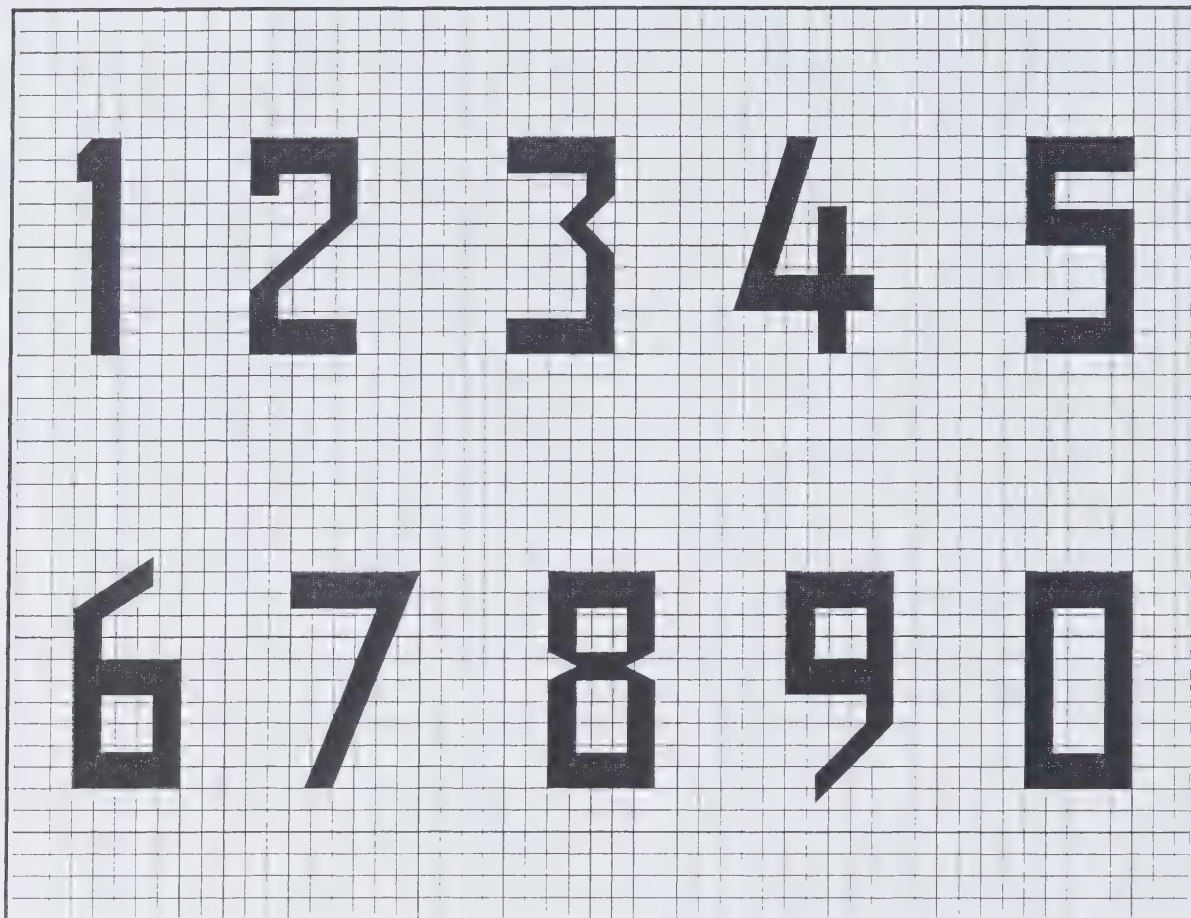


Figure 5-7. Form and proportion of FATO designation markings and maximum allowable mass markings

(j) in the case of taxiway markings:

(i) where, as specified in the HOM, taxiway centre line markings are applicable:

(A) a taxiway centre line marking shall be provided on a paved taxiway of an instrument heliport in such a way as to provide guidance from the FATO to the apron,

(B) on a straight section of taxiway, the taxiway centre line marking shall be located along the taxiway centre line. On a taxiway curve the marking shall continue from the straight portion of the taxiway at a constant distance from the outside edge of the curve, and

(C) a taxiway centre line marking shall be yellow in colour, at least 15 cm in width and continuous in length except where it intersects a taxi-holding position marking as shown in Figure 5-8 or when interrupted by a helicopter parking position information marking as shown in Figure 5-9,

- (ii) where, as specified in the HOM, taxiway holding position markings are applicable:
- (A) a taxiway holding position marking shall be displayed along a taxi-holding position,
 - (B) a taxiway holding position marking at a taxiway and FATO intersection shall be located so that the main rotor blades of a helicopter will not penetrate the safety area when the front part of the longest helicopter for which the taxiway is certified is positioned to the edge of the taxiway holding position marking,
 - (C) the taxi-holding position marking shall consist of yellow bars placed across the taxiway at right angles to the taxiway centre line,
 - (D) the bar shall consist of 4 lines, two adjacent continuous and two adjacent broken lines. Each line shall be 15 cm wide and spaced 15 cm apart. The broken lines shall consist of stripes 90 cm long with a gap of 90 cm between stripes as shown in Figure 5-8, and
 - (E) the continuous lines shall be on the taxiway side of the marking point and the broken lines shall be on the FATO side of the marking point,
- (iii) where, as specified in the HOM, taxiway edge markings are applicable:
- (A) a taxiway edge marking shall be provided on a paved taxiway where the edges of the taxiway are not readily apparent,
 - (B) a taxiway edge marking shall be located along the edge of the paved portion of the taxiway, and
 - (C) a taxiway edge marking shall consist of two continuous 15 cm wide yellow lines spaced 15 cm apart;

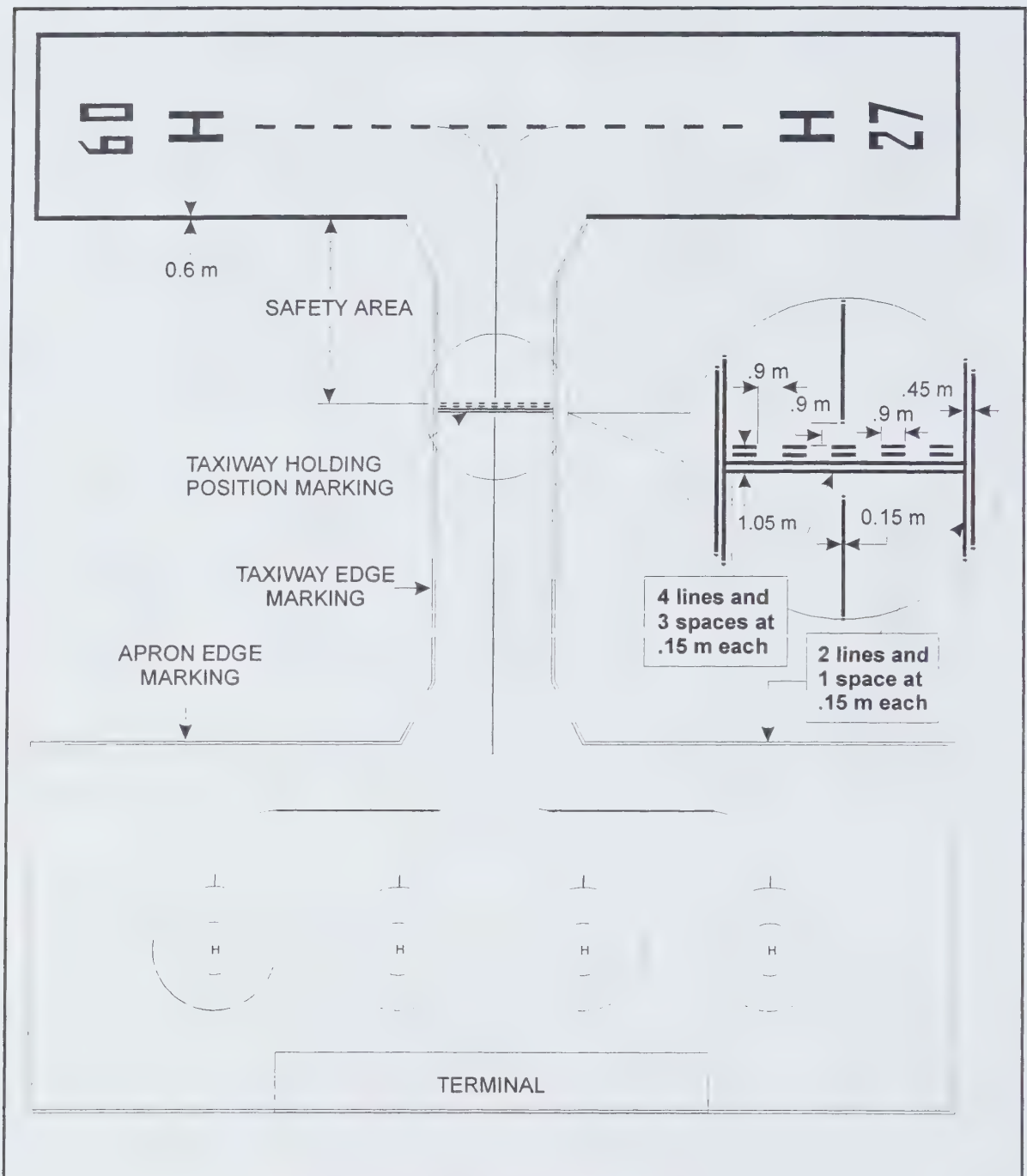


Figure 5-8. Taxiway and apron markings

(k) in the case of apron edge markings:

- (i) apron edge markings shall be provided where the edges of the apron are not easily identifiable,
- (ii) apron edge markings shall be located, as specified in the HOM, along the edge of the area usable for aircraft operation of the apron, and
- (iii) apron edge markings shall consist of two continuous 15 cm wide yellow lines spaced 15 cm apart as shown in Figure 5-8,

(l) in the case of a helicopter parking position marking:

- (i) where, as specified in the HOM, it is intended for a helicopter to park at a specific location on an apron, a helicopter parking position marking shall be provided, where the edges of the apron are not readily apparent,
- (ii) a helicopter parking position marking shall consist of two concentric circles as shown in Figure 5-9 consisting of 30 cm wide yellow lines,
- (iii) the diameter of the outer circle shall not be less than 1.2 times the overall length of the longest helicopter for which the helicopter parking position is certified, and
- (iv) the diameter of the inner circle shall be 1/3 the size of the outer circle,

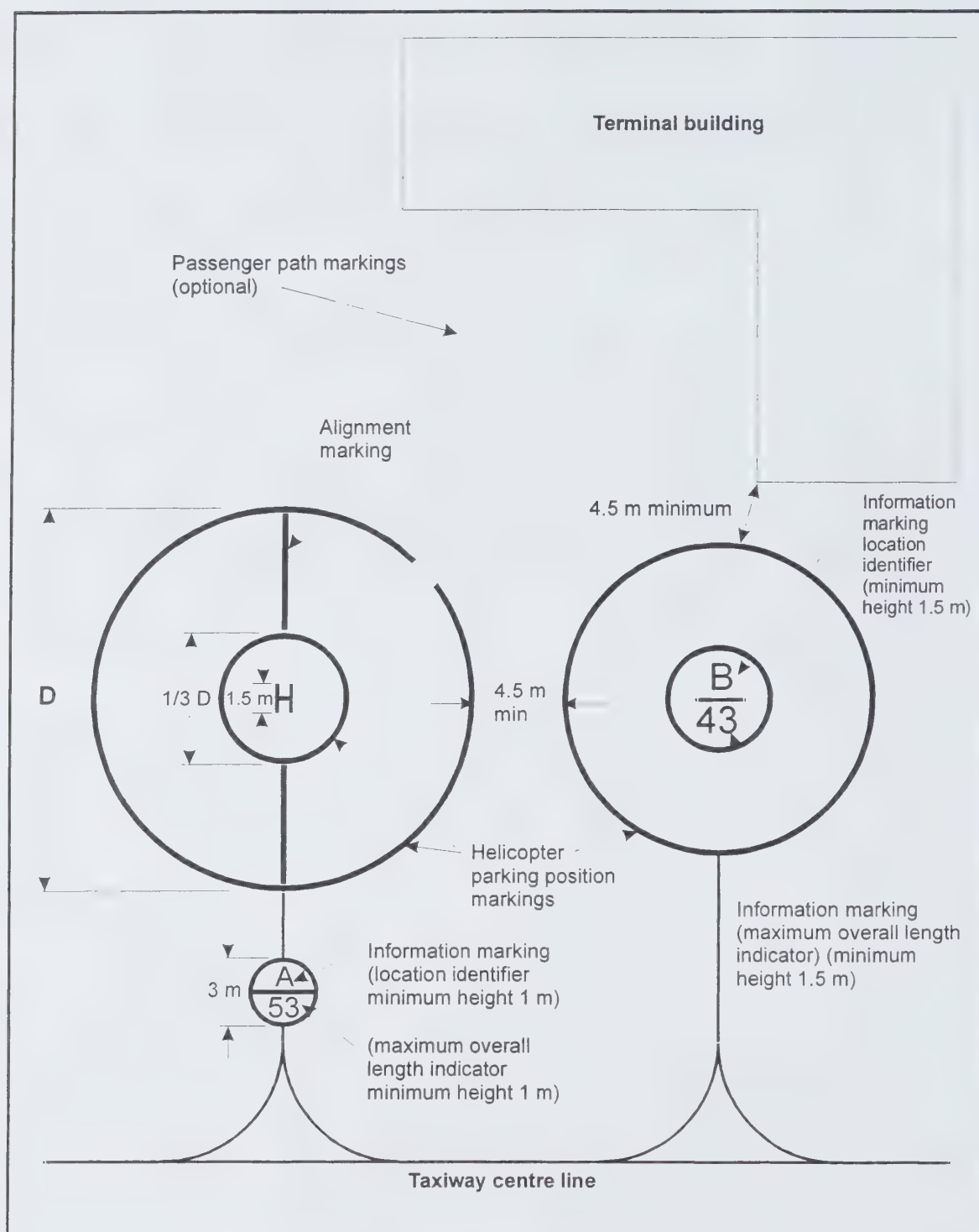


Figure 5-9. Apron markings

(m) in the case of alignment markings:

- (i) where, as specified in the HOM, helicopters are required to have a specific alignment on the helicopter parking position, a helicopter parking position alignment marking shall be provided,
- (ii) the helicopter parking position alignment marking shall be located between the outer circle and the inner circle of the helicopter parking position marking,
- (iii) the helicopter parking position alignment marking shall consist of two 30 cm wide aligned yellow lines, which join the two concentric circles of the helicopter parking position marking, as shown in Figure 5-9, and
- (iv) the helicopter parking position alignment marking shall be oriented at right angles with the cross arm of the capital letter H as shown in Figure 5-9,

(n) in the case of helicopter parking position information markings:

- (i) a helicopter parking position information marking shall be provided where, as specified in the HOM, a helicopter parking position is not able to accommodate the largest aircraft the heliport is intended to serve or where the size of the parking position is restricted by the minimum separation requirement to an obstacle or an adjacent parking position,
- (ii) the helicopter parking position information marking shall be located on or adjacent to the helicopter parking position,
- (iii) where a parking position information marking is located in the inner circle of the helicopter parking position, it shall replace the capital letter H described in subparagraph 325.31(2)(a)(vii), and
- (iv) the parking position information marking shall consist of the parking position designation located above a number indicating the overall length (in feet) of the longest helicopter for which the parking position is certified. Where, as specified in the HOM, the marking is not applied within the inner circle of the helicopter parking position marking, the information marking shall be contained within a circle of approximately 3 m in diameter.

Information Note:

The helicopter size for a specific helicopter parking position is obtained by dividing the diameter of the outer circle of the parking position marking by 1.2.

(o) in the case of apron passenger path markings:

- (i) where, as specified in the HOM, passengers are required to walk on a specific routing on an apron between a helicopter parking position and the passenger terminal, an apron passenger path marking shall be provided,

- (ii) apron passenger path markings shall be located in such a manner that it
 - (A) provides continuous guidance from the passenger terminal to the helicopter parking position, and
 - (B) defines a path that is clear of apron areas where aircraft is expected to operate,
- (iii) apron passenger path markings shall not cross taxiway markings or the access to another helicopter parking position,
- (iv) apron passenger path markings shall be of a form that is easily identifiable to aircraft passengers, and

Information Note:

A suitable form of marking is illustrated in Figure 5-9.

- (v) apron passenger path markings shall be of a colour that distinguishes it from the background and other apron markings;

Information Note:

The paint used on apron passenger path markings should be of a type that provides a good coefficient of friction.

DIVISION VIII — HELIPORT REQUIREMENTS — LIGHTS

325.33 *Lights*

Information Note 1:

Lights which may cause confusion could consist of a ground light, other than an aeronautical ground light, and particularly lights visible from the air within the approach area, which, by reason of its intensity, configuration or colour, might prevent, or cause confusion in, the clear interpretation of aeronautical ground lights.

Information Note 2:

For aeronautical ground lights near navigable waters consideration needs to be given to ensuring that the lights do not cause confusion to mariners.

Information Note 3:

See subsection 325.43(4) for information regarding siting and construction of equipment and installations on operational areas.

Installation of Lights

(1) For the purposes of subsection 305.33(2) of the *Canadian Aviation Regulations*, the requirements in respect of the installation of lights are the following:

- (a) in the case of elevated approach lights as illustrated in figure 5-10:
 - (i) supporting structures for elevated approach lights within 300 m from a FATO shall be frangible, and
 - (ii) an elevated approach light fixture shall not penetrate an obstacle limitation surface;

Information Note:

Consideration may be given to mounting the approach lights on supports that will keep the fixtures above the snow level and, for fixtures outside the heliport boundary, at a height that will preclude interference from or hazard to livestock or other animals.

- (b) in the case of elevated lights for operational areas as illustrated in figure 5-10:
 - (i) supporting structures for FATO, TLOF, taxiway and apron lights shall be frangible;
- (c) in the case of inset lights:
 - (i) FATO, TLOF, taxiway and apron inset lights shall be designed and fitted so as to withstand being run over by the wheels or skids of an aircraft without damage to the aircraft or to the lights, and
 - (ii) the surface temperature of an inset light shall not exceed 100°C;
- (d) in the case of light intensity and control:
 - (i) where a medium or high-intensity lighting system is provided, as defined in TP 312 or any more recent applicable standard pertaining to the same subject a means of intensity control shall be provided to allow for adjustment of the light intensity to meet the prevailing conditions,
 - (ii) separate on/off and intensity controls shall be provided for the following systems when installed:
 - (A) approach lighting system,
 - (B) FATO edge lights,
 - (C) TLOF edge lights,
 - (D) FATO or TLOF inset lights, and
 - (E) taxiway centre line lights;

Information Note:

While the lights of an approach lighting system may be of higher intensity than the FATO lighting, it is good practice to avoid abrupt changes in intensity as these may give a pilot a false impression that the visibility is changing during approach.

(e) in the case of heliport beacons:

(i) where, as specified in the HOM, a heliport beacon is provided,

(A) it shall be located on or adjacent to the heliport and, if physically possible, at an elevated position, and

(B) it shall be located so that the beacon is not shielded by objects in any direction and shall not dazzle a pilot approaching to land, and

(ii) where a heliport beacon is likely to create a safety risk by dazzling the pilots at short range, it shall be switched off or the intensity adjusted during the final stages of approach and landing,

Information Note:

Where brilliancy control is provided, settings of 10 per cent and 3 per cent have been found to be satisfactory.

(iii) the heliport beacon shall show a sequence of four white flashes indicating the letter "H" of the International Morse Code,

(iv) each flash shall have a duration of 0.5 to 2.0 milliseconds,

(v) the four flashes shall be equally spaced over a time period of 0.8 +/- 10 %, and be repeated over an off period between 1.2 and 2.2 seconds rendering a rate of 20 to 30 cycles per minute,

(vi) the light from the beacon shall show in all directions when viewed from above,

(vii) the vertical light distribution of the beacon shall extend upwards from an elevation of not more than 5 degrees, and

(viii) the beacon shall be provided with means of intensity adjustment at the time of installation of from 2000 to 20,000 candela to accommodate for ambient background lighting conditions.

Approach/Take-off Direction Lighting System

(2) For the purposes of subsection 305.33(3) of the *Canadian Aviation Regulations*, the requirements for a heliport equipped with a non-instrument FATO that is certified to be available for use at night, in respect of a direction lighting system, are the following:

- (a) an approach and take-off direction light system shall be provided to serve a non-instrument FATO where
 - (i) specific approach and departure paths are required to be indicated to pilots (i.e. single approach and departure path), and
 - (ii) an obstacle clearance, noise abatement procedure or traffic control procedure requires that a specific direction be flown;
- (b) an approach/take-off direction light system shall consist of a minimum of five lights installed outside and adjacent to the FATO, on the centre line of the approach/departure path, and extending over a distance of at least 1/2 the FATO length, as shown in Figure 5-10;
- (c) the lights shall be placed on the centre line of the approach/departure path at intervals at least 1.5 m apart, with the first light located outside the FATO edge;
- (d) where an approach/take-off direction lighting system is used on a curved approach/departure path, the lights shall be spaced at intervals of not more than 15 m and shall be located in a manner that defines the curved portion of the approach/departure path;

Information Note:

Additional lights may be required, in accordance with the HOM, to define a curved approach/departure path .

- (e) no light shall project into a plane originating at a height of 25 cm above the edge of the FATO and sloping upwards and outward at a gradient of 4 per cent up to the edge of the safety area; and
- (f) approach/take-off direction lights shall be fixed omnidirectional yellow lights.

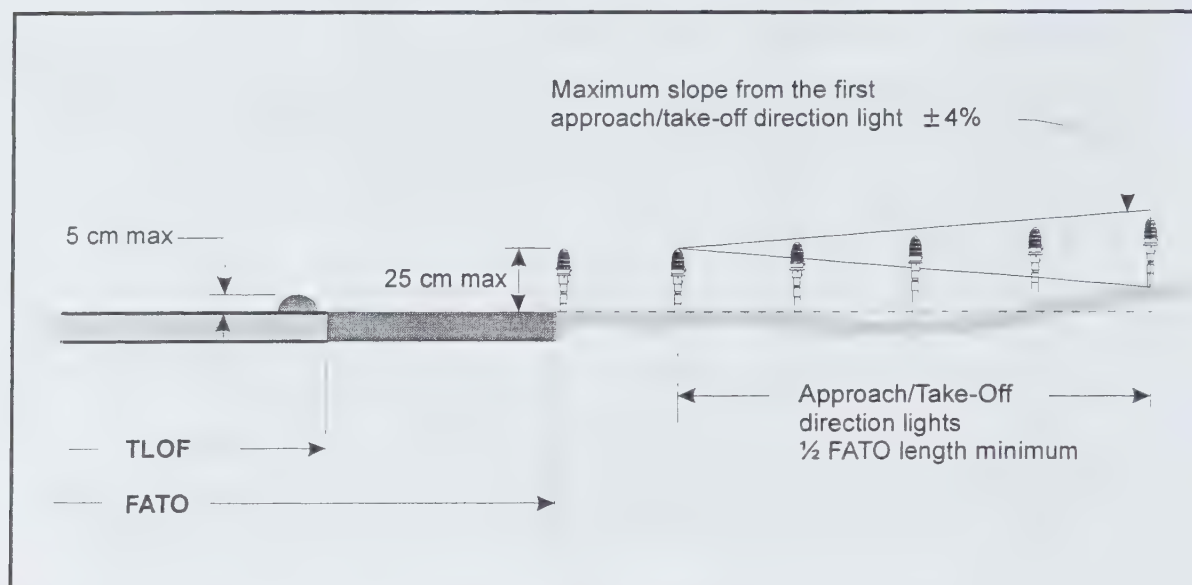


Figure 5-10. Maximum mounting height for TLOF, FATO and approach/take-off direction lights

Visual Approach Slope Indicator System

Information Note:

This Division covers standards for visual approach slope indicators, including:

- PAPI - Precision Approach Path Indicator (four light unit system);
- APAPI - Abbreviated PAPI (two light unit system);
- HAPI - Heliport Approach Path Indicator (single light unit, five sector);
- AHAPI - Abbreviated HAPI (single light unit, three sector).

(3) The requirements for the purposes of subsection 305.33(4) of the *Canadian Aviation Regulations*, in respect of a visual approach slope indicator system, are the following:

(a) a visual approach slope indicator system shall be provided to serve the approach to a FATO where an aeronautical evaluation performed as part of the continued certification process and is afterwards included in the HOM, and it has determined that it is difficult to judge the approach because

- (i) visual references have been identified to be inadequate,
- (ii) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown, or
- (iii) deceptive surrounding terrain has been identified as producing misleading information; and

(b) a visual approach slope indicator shall be located, as specified in the HOM, outside the FATO in a way that guides a helicopter to the desired position within the FATO.

Information Note:

The specific standards for PAPI and APAPI are found in the applicable Aerodrome Standards and Recommended Practices (TP 312).

General Design Requirements for HAPI and AHAPI

(4) For the purposes of subsection 305.33(5) of the *Canadian Aviation Regulations*, where a HAPI or an AHAPI is provided at a certified heliport, the general design requirements in respect of a visual approach slope indicator system, are the following:

- (a) the light unit shall be mounted so as to be frangible and as low as possible when located within the safety area;
- (b) the light unit shall be provided with an intensity control so as to allow adjustment to meet prevailing ambient lighting conditions and to avoid dazzling the pilot during approach and landing;

Information Note:

The light unit should be designed to minimize deposit of condensation (e.g. dew, frost, ice, dirt) on the optically transmitting or reflecting surfaces that may otherwise cause spurious or false signals to be generated.

- (c) HAPI and AHAPI systems intended for installation on a floating helideck shall have means for stabilisation of the beam within an accuracy of $\pm 1/4$ degree for a ± 3 degree pitch and movement of the helideck;
- (d) the light unit shall be capable of adjustment in elevation at any desired angle between 1 degree and 12 degrees above the horizontal with an accuracy of ± 5 minutes of arc;
- (e) the angle of elevation setting shall be the lower boundary of the “on-slope” sector minus 2 minutes of arc to account for the transition sector between the green and red signals;
- (f) the colour transition sectors of HAPI and AHAPI, in the vertical plane, shall appear to an observer at a distance of not less than 300 m to occur within a vertical angle of not more than 3 minutes of arc at the beam centre and not more than 5 minutes of arc at the azimuth coverage limits;
- (g) the transmission factor for red or green filters shall not be less than 15 per cent at the maximum intensity setting;

(h) at full intensity, the red light of the beam of a HAPI shall have a “y” co-ordinate not exceeding 0.320 and the green light shall be within the restricted area of Figure 5-11 for certainty of recognition and for which the following equations apply for the applicable boundaries:

(i) Red Area

(A) purple boundary $y = 0.980 - x$, and

(B) yellow boundary $y = 0.320$;

(ii) Green Area

(A) yellow boundary $y = 0.726 - 0.726x$,

(B) white boundary $y = 0.625y - 0.041$, and

(C) blue boundary $y = 0.390 - 0.171x$; and

(i) at full intensity, the red and green light of an AHAPI shall be that specified for HAPI in subsection (3) and the yellow light shall lie within the indicated area of Figure 5-11 for which the following equation applies for the applicable boundaries:

(i) Yellow Area

(A) red boundary $y = 0.382$,

(B) white boundary $y = 0.790 - 0.667x$, and

(C) green boundary $y = x - 0.120$.

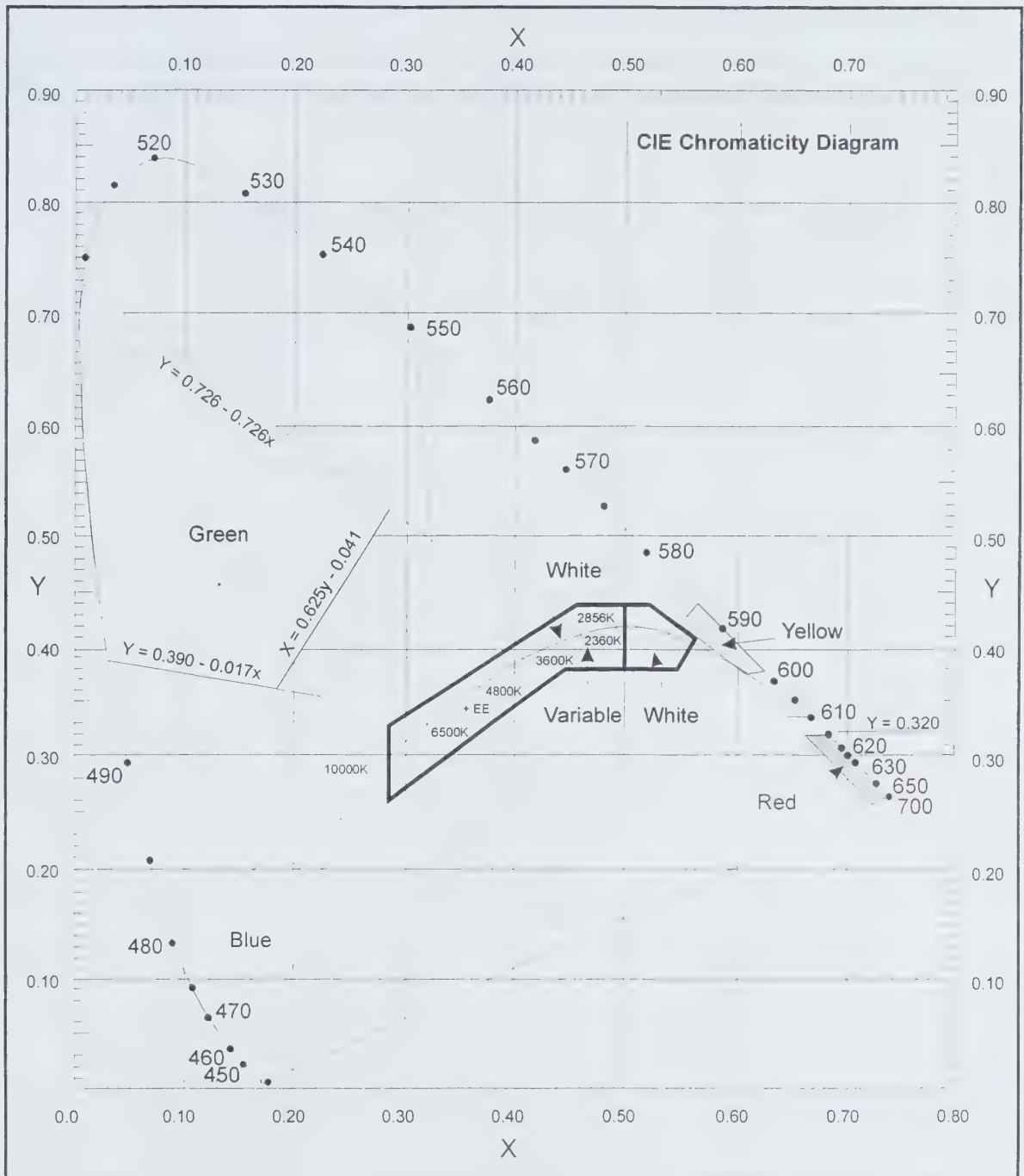


Figure 5-11. Colors for HAPI and AHAPI signals

Specific Requirements for HAPI and AHAPI

(5) For the purposes of subsection 305.33(5) of the *Canadian Aviation Regulations*, where a HAPI or an AHAPI is provided at a certified heliport, the specific requirements in respect of a visual approach slope indicator system, are the following:

(a) the HAPI shall be designed to provide

(i) a signal format which includes four discrete signal sectors, providing an “above slope”, “on slope”, “slightly below slope”, and a “below slope” signal, as shown in Figure 5-12,

(ii) a flash rate of 120 flashes per minute for the flashing sectors,

(iii) an “on-to-off” ratio of pulsating signals of 1 to 1, with a modulation depth of at least 80 per cent,

(iv) an angular size of “on-slope” sector of 45 minutes of arc, and

(v) an angular size of “slightly below” sector of 15 minutes of arc;

(b) the AHAPI shall be designed to provide:

(i) a signal format which includes three signal sectors, providing an “above slope”, “on slope”, and “below slope” signal, as shown in Figure 5-13, and

(ii) an angular size of “on-slope” sector of 60 minutes of arc.

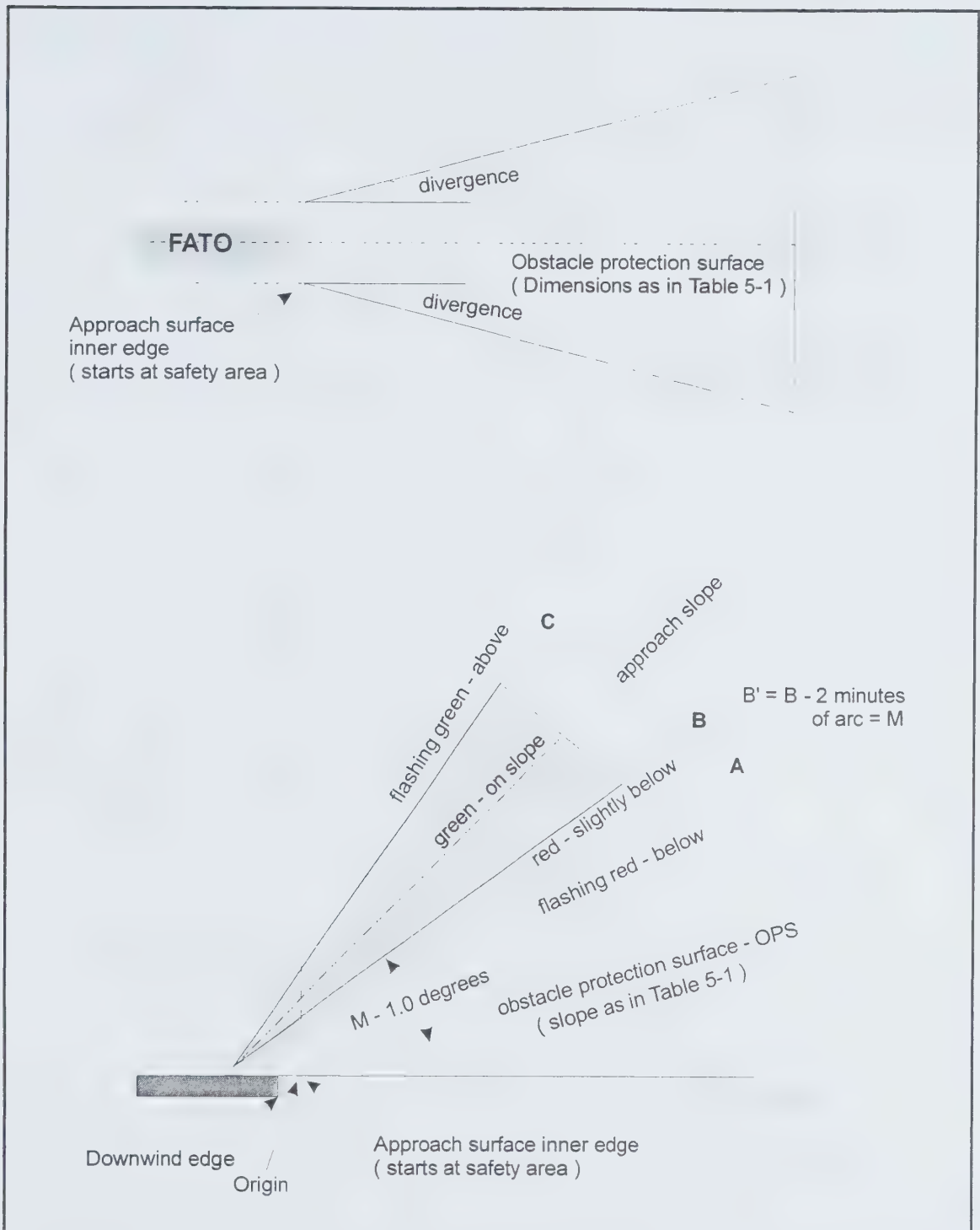


Figure 5-12. HAPI signal format

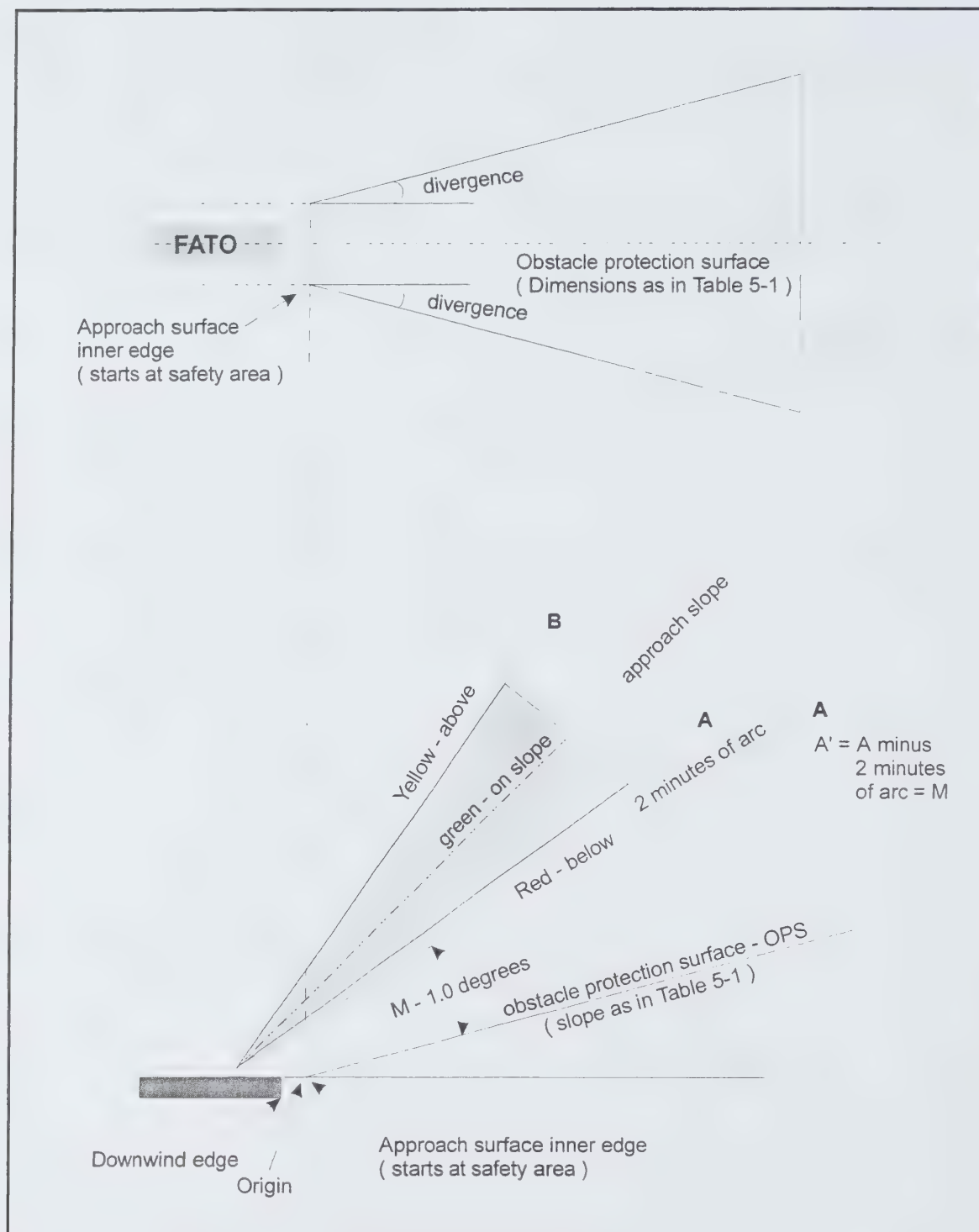


Figure 5-13. AHAPI signal format

Monitoring

(6) For the purposes of subsection 305.33(6) and in accordance with subsection 305.43(1) of the *Canadian Aviation Regulations*, the visual approach slope indicator system shall be monitored as follows:

- (a) on a daily basis when there is aircraft operation to detect an out of level condition; or
- (b) with an automatic shut-off switch, which will extinguish the unit if misalignment exceeds 0.5 degrees.

Obstacle Protection Surface (OPS)

(7) For the purposes of subsection 305.33(7) of the *Canadian Aviation Regulations*, where a visual approach slope indicator system is provided, the following specifications apply to PAPI, APAPI, HAPI and AHAPI for heliports:

- (a) an OPS shall be established, in accordance with that subsection, when a visual approach slope indicator system is provided as specified in the HOM;
- (b) the characteristics of the OPS shall correspond to those specified in Table 5-1;
- (c) the slope of the OPS shall be a minimum of one degree below the angle “M” = “A” or “B” (as applicable) minus 2 minutes of arc;
- (d) the installation, after the most recent certification for that heliport, of objects or extensions of existing objects shall not be permitted above the obstacle protection surface (OPS); and
- (e) where the installation of the AHAPI will result in an existing object extending above the OPS, at least one of the following measures shall be taken
 - (i) raise the approach slope of the system,
 - (ii) reduce the azimuth spread of the system with the object left outside the beam,
 - (iii) displace the axis of the system and its associated OPS, or
 - (iv) displace the final approach and take-off area.

Table 5-1
Dimensions and slopes of the obstacle protection surface (OPS)

Surface and dimensions (1)	Non-instrument FATO (2)	Non-precision FATO (3)
Length of inner edge	Width of safety area	Width of safety area
Distance from end of FATO	3 m minimum	30 m
Divergence	10 %	15 %
Total Length	2500 m	2500 m
Slope:		
PAPI	* B' - 1.0 degrees	* B' - 1.0 degrees
APAPI	* A' - 1.0 degrees	* A' - 1.0 degrees
HAPI	** B' - 1.0 degrees	** B' - 1.0 degrees
AHAPI	*** A' - 1.0 degrees	*** A' - 1.0 degrees
* as indicated in TP 312, <i>Aerodrome Standards and Recommended Practices</i>		
** the angle of the lower boundary of the "on-slope" signal, where B' = B minus 2 minutes of arc		
*** the angle of the lower boundary of the "on-slope" signal, where A' = A minus 2 minutes of arc		

FATO Area Lights

(8) The requirements, for the purposes of subsection 305.33(8) of the *Canadian Aviation Regulations*, in respect of FATO area lights, are the following:

Information Note:

Under certain environmental conditions (e.g. fog, drifting snow), it may be necessary, in order to meet the applicable requirements, to consider the use of a combination of floodlighting and perimeter lights or luminescent panels to provide surface texture cues of the limit of the FATO area.

(a) FATO area lights shall be placed along the edges of the FATO in accordance with the requirements specified in Figure 5.14 as applicable. The lights shall be uniformly spaced as follows:

- (i) for an area in the form of a square or rectangle, at intervals of not more than 7.5 m with a minimum of four lights on each side including a light at each corner, and
- (ii) for any other shaped area, including a circular area, at intervals of not more than 7.5 m with a minimum of eight lights;

(b) for an instrument heliport, an additional light shall be inserted between the lights specified in paragraph (1)(c)(i) below in the front and rear row of the perimeter lights, perpendicular to the approach and departure paths;

(c) FATO area lights shall be

- (i) of fixed or variable intensity, omnidirectional, and amber or white in colour,
- (ii) mounted so that the overall height is not more than 25 cm above the adjacent FATO edge,
- (iii) provided with frangible mountings where elevated lights are used,
- (iv) where elevated lights are used, as illustrated in Figure 5-10, they shall be located on or outside the edge of the FATO to a maximum distance of 1.5 m, and
- (v) where flush lights are used, they shall be located on or within 30 cm from the inside edge of the FATO or the FATO edge markings.

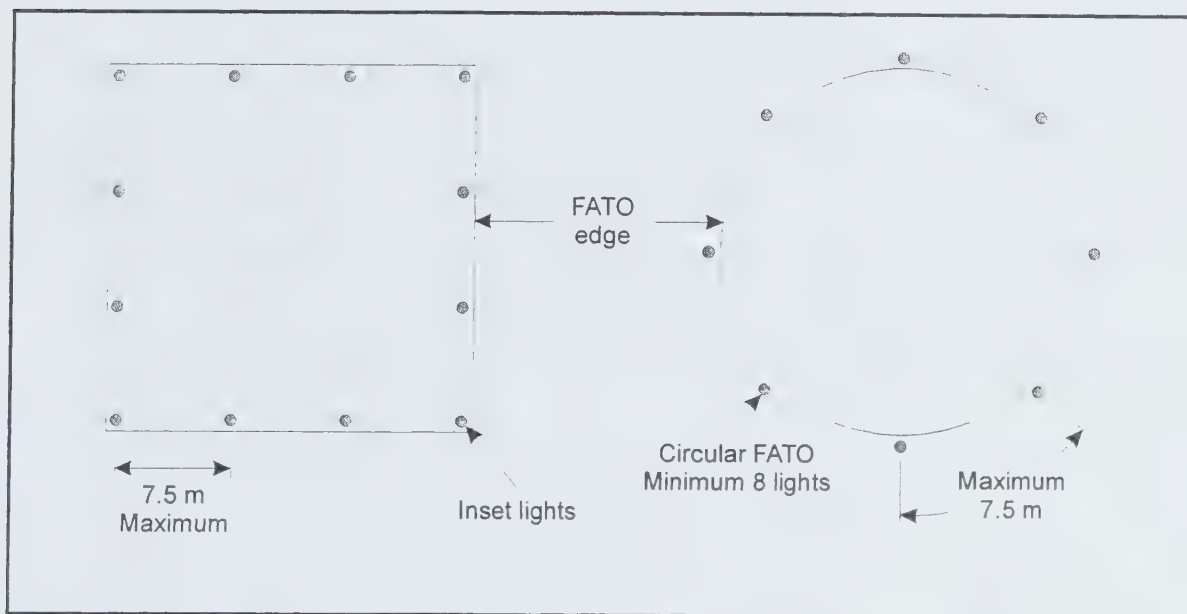


Figure 5-14. Examples of FATO lighting

Aiming Point Lights

(9) For the purposes of subsection 305.33(9) of the *Canadian Aviation Regulations*, the requirements where a TLOF is not located within a FATO that is certified to be available for use at night, in respect of aiming point lights, are the following:

- (a) where a TLOF is not located within a FATO intended for use at night, the aiming point shall be illuminated;
- (b) the method to illuminate the aiming point shall consist of a pattern of seven omnidirectional lights, luminescent panel lighting or floodlights;

- (c) aiming point lights shall be located on the aiming point marking with a configuration as shown in Figure 5-15;
- (d) where, as specified in the HOM, aiming point lights are provided on a TLOF, they shall be inset omnidirectional white lights or luminescent panels;
- (e) where, as specified in the HOM, a luminescent panel is provided, it shall be at least 6 cm wide and its housing shall be the same colour as the aiming point marking; and
- (f) where, as specified in the HOM, aiming point lights are provided on a FATO without a TLOF, the lights shall not exceed a height of 25 cm above the surface of the FATO and shall be red in colour.

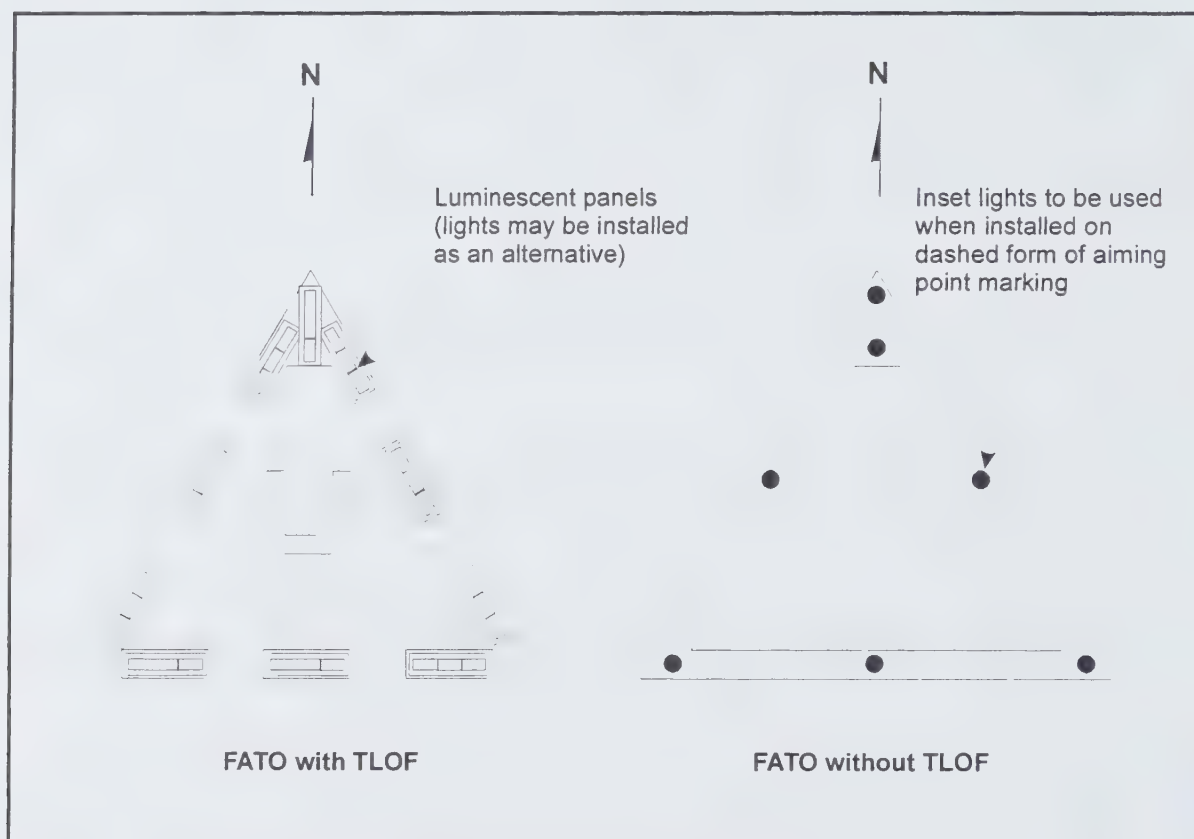


Figure 5-15. Aiming point lighting

Touchdown and Lift-off Area Lights

(10) For the purposes of subsection 305.33(10) of the *Canadian Aviation Regulations*, the requirements in respect of TLOF are the following:

(a) in the case of all touchdown and lift-off area lights:

(i) where, as specified in the HOM, the size of the TLOF is the same as the FATO, the standards set out in subsection 325.33(8) for FATO lights apply, and

(ii) the TLOF lighting system shall consist of perimeter lights, luminescent panel lighting, or floodlighting;

Information Note:

A combination of floodlighting and perimeter lights or floodlighting and luminescent panel lighting can be provided to enhanced surface texture cues within the FATO and TLOF.

(b) in the case of touchdown and lift-off area perimeter lights:

(i) where, as specified in the HOM, TLOF area perimeter lights are provided, they shall be placed along the edge of the TLOF or within a distance of 1.5 m from the edge,

(ii) where, as specified in the HOM, TLOF area perimeter lights are provided at a surface level heliport, they shall be uniformly spaced as follows:

(A) for an area in the form of a square or rectangle, at intervals of not more than 5 m with a minimum of four lights on each side including a light at each corner as shown in Figure 5-16, and

(B) for an area of any other shape, including a circular area, at intervals of not more than 5 m with a minimum of eight lights as shown in Figure 5-16,

(iii) the TLOF area perimeter lights shall be fixed omnidirectional lights showing yellow,

(iv) where, as specified in the HOM, TLOF area perimeter lights are provided at an elevated/rooftop heliport,

(A) the lights shall be uniformly spaced at intervals of not more than 3 m with a minimum of four lights on each side including a light at each corner for an area in the form of a square or rectangle, and, for an area of any other shape, including a circular area, at intervals of not more than 3 m with a minimum of eight lights, and

(B) the lights shall not penetrate into a plane beginning 5 cm above the edge of the TLOF area, sloping upward to 25 cm, and ending where the plane coincides with the FATO edge in accordance with Figure 5-17,

(v) at an elevated/rooftop heliport the TLOF area perimeter lights shall be shielded or installed so that the pattern cannot be seen by the pilot from below the elevation of the TLOF area, and

(vi) except for inset lights, TLOF area perimeter light mountings shall be frangible;

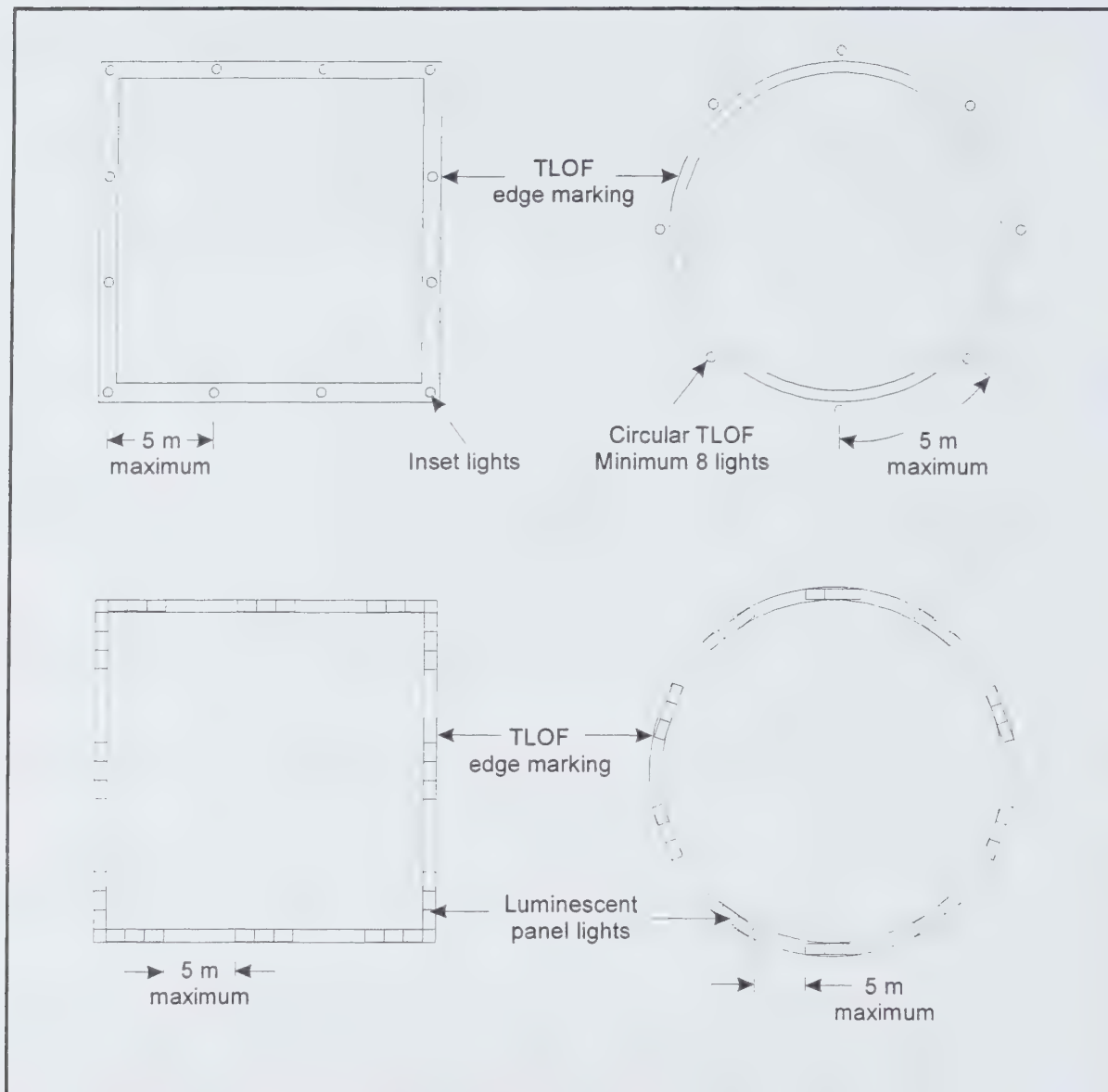


Figure 5-16. Examples of TLOF lighting

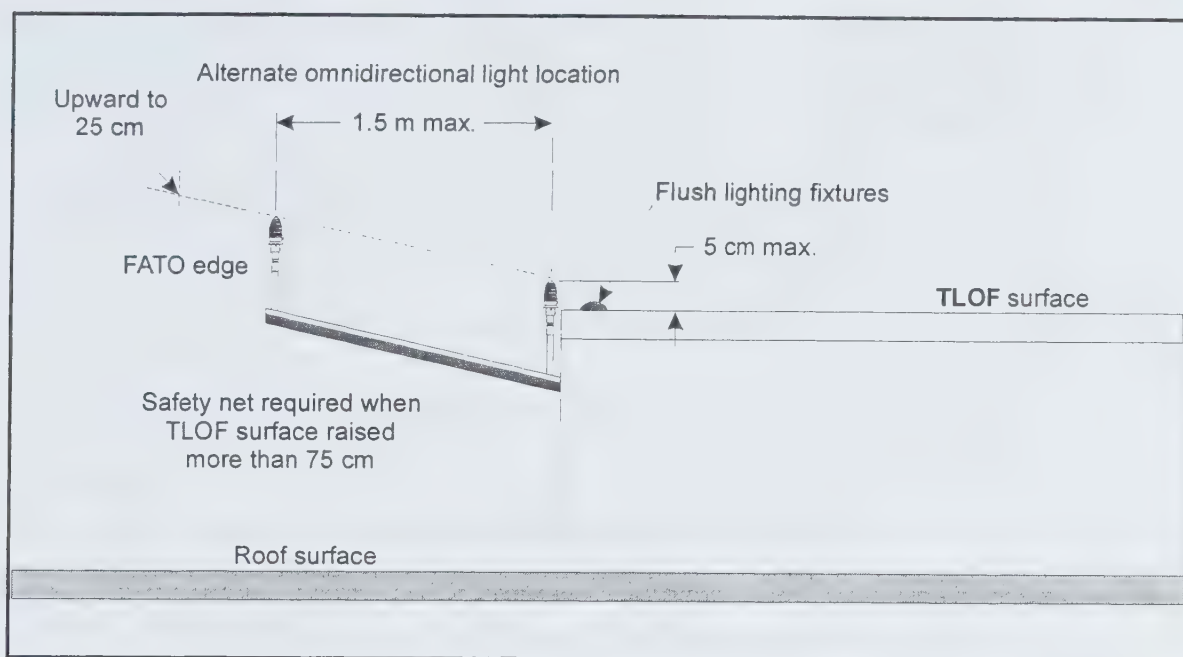


Figure 5-17. Elevated TLOF light installation and mounting height

(c) in the case of touchdown and lift-off area floodlights:

- (i) except for an elevated/rooftop heliport, where a TLOF is located within a FATO, floodlights used to illuminate the TLOF area shall be located outside the perimeter of the FATO area,
- (ii) where, as specified in the HOM, TLOF area floodlights are provided, they shall be located so as to avoid glare to pilots in flight or to personnel working on the area. The floodlight shall be arranged and aimed so that shadows are kept to a minimum,

Information Note:

Where the possibility of glare exists on a specific approach path, procedures may be required to notify the pilot of the potential hazard.

- (iii) where, as specified in the HOM, TLOF area floodlights have been provided on a TLOF located on an elevated/rooftop heliport, the TLOF area floodlights shall not penetrate a plane beginning 5 cm above the TLOF edge sloping upward to 25 cm and ending where the plane coincides with the FATO edge in accordance with Figure 5-17,
- (iv) as specified in the HOM, the spectral distribution of the TLOF area floodlighting shall be installed so that the limits and the surface of the TLOF can be correctly identified,
- (v) the average horizontal illuminance of the floodlight shall be at least 10 lux with a uniformity ratio (average to minimum) of not more than 8:1, and

(vi) where floodlights are provided within a safety area, the floodlight mountings shall be frangible;

(d) in the case of luminescent panels:

(i) where, as specified in the HOM, luminescent panels are provided, they shall be placed along the marking designating the edge of the TLOF area. Where the TLOF area is a circle, the luminescent panels shall be located on straight lines circumscribing the area as shown in Figure 5-16,

(ii) luminescent panels shall be uniformly spaced with a distance between adjacent panel ends of not more than 5 m,

(iii) the total length of luminescent panels in a pattern shall not be less than 50 per cent of the length of the pattern,

(iv) where provided on a square or rectangular TLOF, there shall be a minimum of three panels on each side of the TLOF area including a panel at each corner,

(v) luminescent panels shall emit yellow light, and

(vi) the luminescent panels shall not extend above the surface by more than 2.5 cm.

Rejected Take-off Area Lights

(11) For the purposes of subsection 305.33(11) of the *Canadian Aviation Regulations*, the requirements in respect of rejected take-off area lights when the heliport is intended for use at night are the following:

(a) rejected take-off area lights shall be placed

(i) along the full length of the rejected take-off area separated by a distance of not more than 7.5 m and shall be in two parallel rows that are equidistant from the centre line and coincident with the rows of the FATO area edge lights, and

(ii) across the end of a rejected take-off area on a line at right angles to the rejected take-off axis as near to the end of the rejected take-off area as possible and, in any case, not more than 3 m outside the rejected take-off area;

(b) rejected take-off area lights shall be fixed unidirectional lights showing red to pilots in the process of take-off; and

(c) rejected take-off area light mountings shall be frangible.

Taxiway Centre Line Lights

(12) For the purposes of subsection 305.33(12) of the *Canadian Aviation Regulations*, the requirements in respect of taxiway centre line lights on a taxiway intended for use in runway visual range (RVR) conditions less than 1200 feet or in conditions of ground visibility less than 1/4 statute mile, are the following:

Information Note:

Where there may be a need to delineate the edges of a taxiway due to limited width, (e.g. narrow taxiway or in snow conditions) this may be done with taxiway edge lights or markers.

- (a) taxiway centre line lights on a straight section of a taxiway shall be spaced at longitudinal intervals of not more than 15 m;
- (b) taxiway centre line lights on a taxiway curve shall continue from the straight portion of the taxiway at a constant distance from the outside edge of the taxiway curve. The lights shall be spaced at intervals that provide a clear indication of the curve but, in any case, not more than 7.5 m apart;
- (c) taxiway centre line lights on a taxiway shall be fixed lights showing green with beam dimensions that makes the light visible only from aircraft on or in the immediate vicinity of the taxiway; and
- (d) where aircraft follow the same centre line in both directions the centre line lights shall be bi-directional.

Taxiway Edge Lights

(13) For the purposes of subsection 305.33(12) of the *Canadian Aviation Regulations* the requirements for taxiway edge lights when, as specified in the HOM, the taxiway is intended to be used at night, are the following:

- (a) taxiway edge lights shall be provided on a taxiway which, as specified in the HOM, is not provided with taxiway centre line lights;
- (b) taxiway edge lights shall be fixed lights showing blue. The lights shall show up to at least 30° above the horizontal and at all angles in azimuth necessary to provide guidance to a pilot taxiing in either direction;
- (c) at an intersection, exit or curve, the lights shall be shielded so that they cannot be seen in angles of azimuth in which they may be confused with other lights;

Information Note:

Where it would increase safety at an intersection of two taxiways, additional blue lights (e.g. double) may be installed to improve the identification of the intersection.

- (d) the lights shall be located not more than 1.5 m from the edges of the taxiway;
- (e) the intersection of a taxiway with a FATO area shall be indicated by placing two blue edge lights on each side of and adjacent to the taxiway/FATO intersection
 - (i) one light shall be positioned in line with the edge lights,
 - (ii) the second shall be positioned not more than 0.6 m from the first and equidistant from the edges of the FATO and the taxiway in accordance with Figure 5-18,

- (f) taxiway edge lights on a straight section of a taxiway and on a recognized taxi route shall be spaced, as specified in the HOM, at uniform longitudinal intervals of not more than 15 m;
- (g) taxiway edge lights on a taxiway curve shall continue from the straight portion of the taxiway at a constant distance from the outside edge of the taxiway curve;
- (h) the lights shall be spaced at intervals that provide a clear indication of the curve but, in any case, not more than 7.5 m apart; and
- (i) taxiway edge light mountings shall be frangible.

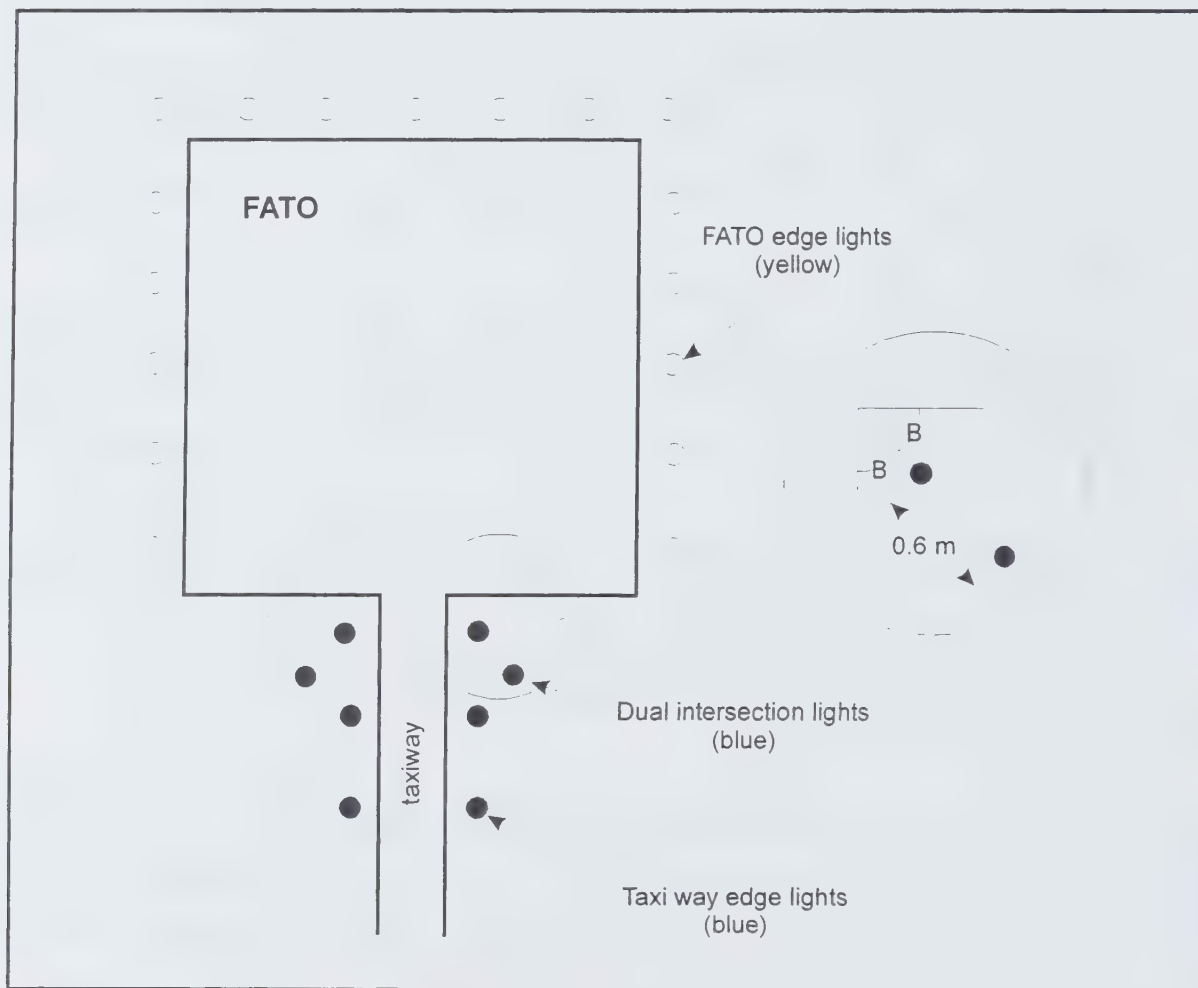


Figure 5-18. Taxiway corner lights

Apron Lighting

(14) For the purposes of subsection 305.33(14) of the *Canadian Aviation Regulations*, where an apron is available at a heliport that is certified for use at night, the requirements, in respect of apron lighting, are the following:

- (a) apron edge lights shall be provided on an apron except where, as specified in the HOM, retro-reflective edge markers or apron floodlighting is provided;
- (b) apron edge lights shall be located not more than 1.5 m from the edges of the apron;
- (c) apron edge lights shall be fixed lights showing blue;
- (d) apron edge lights shall be mounted so that the overall height of the light is not more than 25 cm above the adjacent apron edge elevation;
- (e) apron edge lights shall be spaced at uniform intervals of not more than 15 m;
- (f) apron edge mounting shall be frangible;
- (g) the intersection of a taxiway with an apron area shall be indicated by placing two amber edge lights on each side of and adjacent to the taxiway/apron intersection
 - (i) one light shall be positioned in line with the edge lights, and
 - (ii) the second shall be positioned not more than 0.6 m from the first and equidistant from the edges of the apron and the taxiway in accordance with Figure 5-18,
- (h) where, as specified in the HOM, retro-reflective edge markers are used, the standards set out in subsection 325.35(3) for taxiway edge markers apply; and
- (i) where, as specified in the HOM, apron floodlighting is provided, the average horizontal illuminance shall be at least 20 lux with a uniformity ratio (average to minimum) of not more than 4:1.

325.34 *Reserved*

DIVISION IX — HELIPORT REQUIREMENTS — MARKERS

325.35 *Markers*

General Characteristics

(1) For the purposes of subsection 305.35(1) of the *Canadian Aviation Regulations* the requirements in respect of markers installed at the heliport are the following:

- (a) except for flush mounted markers, markers shall be lightweight and frangibly mounted so as not to constitute a safety hazard; and
- (b) those located near a FATO area or taxiway shall be sufficiently low, so as not to constitute a safety hazard, to preserve clearance for tail rotor and/or the under side of aircraft.

Information Note:

Anchors or chains may be used to prevent markers that have broken from their mounting from blowing away.

FATO Area Markers

(2) For the purposes of subsection 305.35(2) of the *Canadian Aviation Regulations*, the requirements in respect of the FATO markers are the following:

- (a) FATO area markers shall be provided where, as specified in the HOM, a FATO edge marking is not provided and there is a lack of contrast between the boundary of the FATO area and the surrounding ground;
- (b) FATO area markers shall be located on the boundary of the FATO area;
- (c) FATO area markers shall not have a height exceeding 25 cm above ground or snow level;
- (d) FATO area markers shall be spaced at equal intervals
 - (i) for a square or rectangular area, with at least three markers on each side including a marker at each corner, and
 - (ii) for any other shaped area including a circular area, with a minimum number of eight (8) markers; and
- (e) FATO area markers shall be coloured to contrast with the background against which they will be seen.

Information Note:

A single colour, orange or red, or two contrasting colours, orange and white or red and white, can be used, except where these colours would not be easily identifiable against the background.

Taxiway Edge Markers

(3) For the purposes of subsection 305.35(3) of the *Canadian Aviation Regulations* the requirements in respect of taxiway edge markers are the following:

- (a) where, as specified in the HOM, taxiway edge markers are provided:
 - (i) taxiway edge markers shall be installed at the same locations as would the taxiway edge lights have otherwise been installed, and at a height not greater than 25 cm above the taxiway surface,
 - (ii) a taxiway edge marker shall be blue,
 - (iii) the marked surface as viewed by the pilot shall be a rectangle and shall have a minimum viewing area of 150 cm², and

- (iv) taxiway edge markers shall be lightweight and frangible so as not to constitute a safety hazard;
- (b) where, as specified in the HOM, taxiway centre line markers are provided to improve the guidance of the taxiway centre line marking, the markers shall be installed at least at the same location as would taxiway centre line lights had they been installed,
 - (i) the markers shall normally be located on the taxiway centre line marking but where it is not physically practicable to locate them on the marking, they may be offset by not more than 30 cm,

Information Note:

See subsection 325.35(3) for the spacing of taxiway centre line lights.

- (ii) the markers shall be retro-reflective green,
- (iii) the marked surface as viewed by the pilot shall be a rectangle and have a minimum viewing area of 20 cm², and
- (iv) the markers shall be designed and fitted so as to withstand the downwash of a helicopter or being run over by the wheels of an aircraft without damage either to the aircraft or to the markers themselves.

Air Taxiway Markers

(4) For the purposes of subsection 305.35(4) of the *Canadian Aviation Regulations* the requirements in respect of air taxiway markers are the following:

Information Note:

These markers are not meant to be used on a helicopter ground taxiway.

- (a) air taxiway markers shall be located along the edge of the air taxiway and shall be spaced at intervals of not more than 30 m on straight sections and 15 m on curves;
- (b) an air taxiway marker shall be frangible and, when installed, shall not exceed 35 cm above ground or snow level. The surface of the marker as viewed by the pilot shall be a rectangle with a height to width ratio of approximately 3 to 1 as shown in Figure 5-19 and shall have a minimum area of 150 cm²; and
- (c) an air taxiway marker shall be divided into three equal, horizontal bands coloured yellow, green and yellow respectively. If the air taxiway is to be used at night as specified in the HOM, the markers shall be internally illuminated, retro-reflective, or have sufficient external illumination to make them easily identifiable.

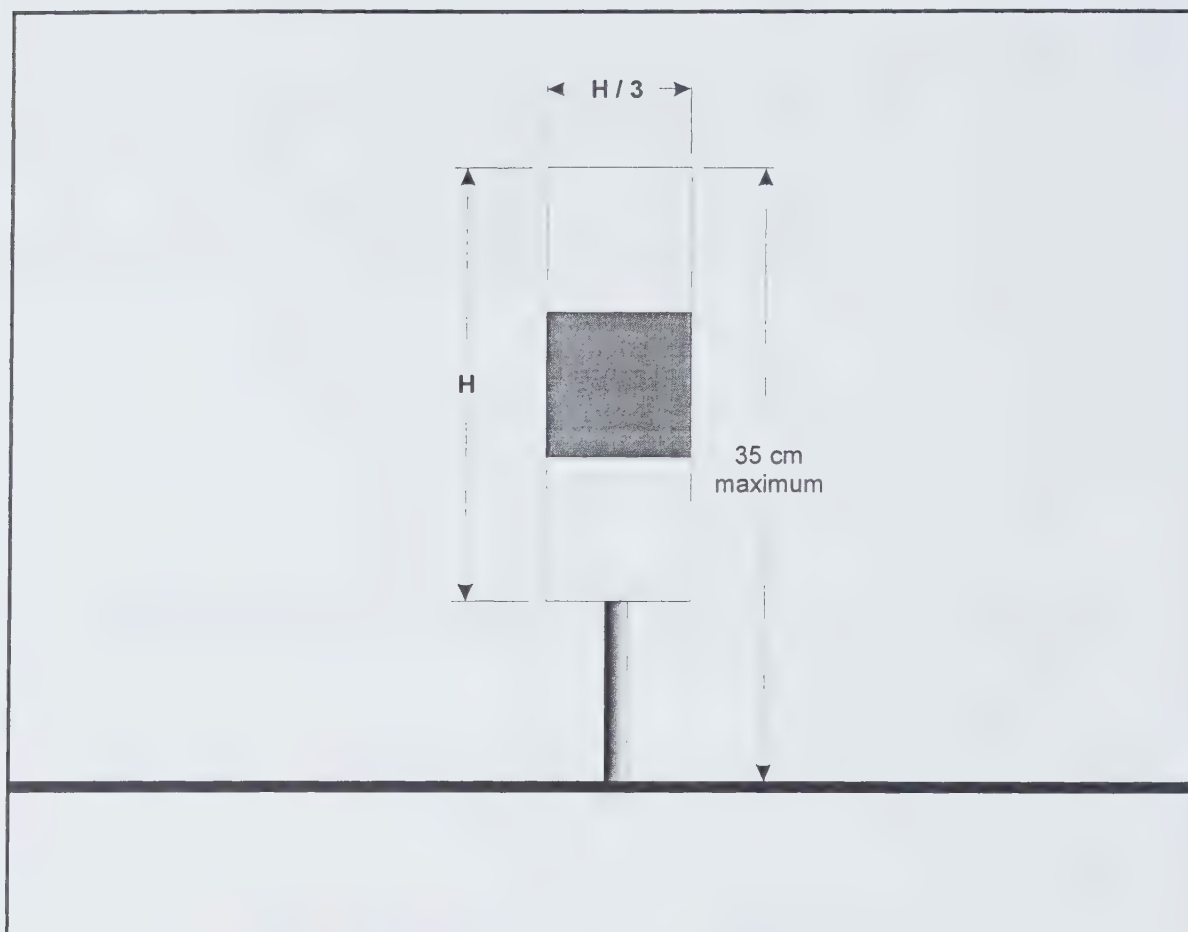


Figure 5-19. Air taxiway edge marker

325.36 *Reserved*

**DIVISION X — HELIPORT REQUIREMENTS —
VISUAL AIDS FOR DENOTING OBSTACLES**

325.37 *Requirements for Marking or Lighting*

Information Note:

The marking and lighting of obstacles is intended to reduce hazards to aircraft by indicating their presence. This Division outlines the circumstances in which obstacles located within the perimeter of the heliport and immediate vicinity are required to be marked or lighted. Standard 621.19 sets out the methods that may be used to mark or light these obstacles.

Fixed Obstacles

(1) For the purposes of subsections 305.37(1) and (3) of the *Canadian Aviation Regulations*, the requirements in respect of marking or lighting obstacles are the following:

- (a) a fixed obstacle that is located within the shaded area shown in Figure 6-1 shall be marked and, if the heliport is certified for use at night, lighted;
- (b) a heliport operator need not mark an obstacle if the obstacle is not more than 150 m above the surrounding ground and is lighted by a medium intensity obstacle light, as defined in TP 312 or any more recent applicable standard pertaining to the same subject, by day;
- (c) marking of a fixed obstacle above 150 m can be omitted if the obstacle is lighted by high-intensity obstacle lights, as defined in TP 312 or any more recent applicable standard pertaining to the same subject, by day; and
- (d) a heliport operator does not need to mark or light an obstacle if
 - (i) the obstacle is shielded by another fixed object, or
 - (ii) the obstacle is, by its nature, easily identifiable or an aeronautical evaluation is performed as part of the continued certification process and is afterwards included in the HOM, and it indicates that ambient light is sufficient at night.

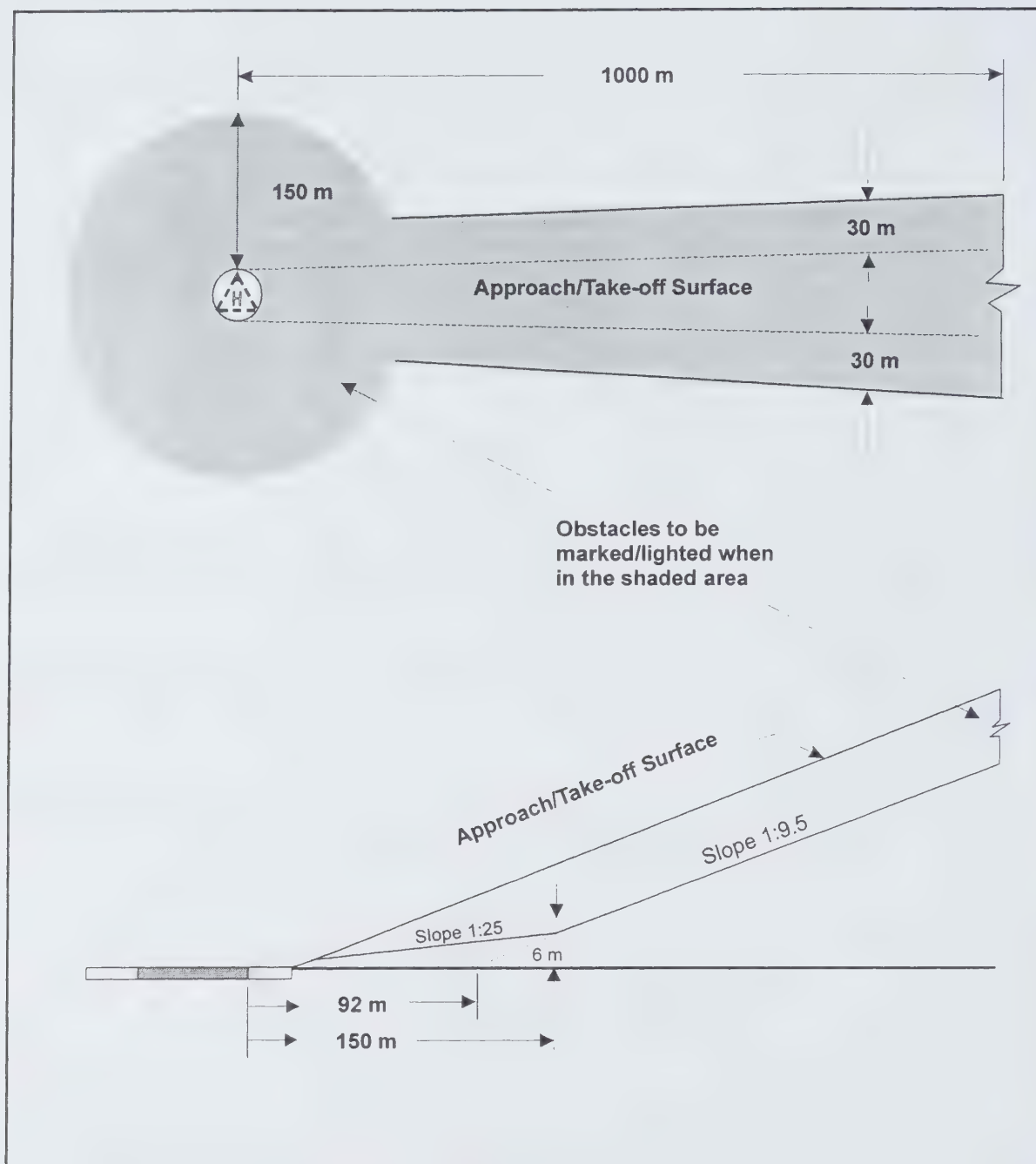


Figure 6-1. Obstacle marking/lighting area

(2) Elevated Obstacles on Taxiway Strips

An elevated obstacle on a helicopter ground taxiway strip shall be marked and, if the taxiway is used at night, lighted.

325.38 Marking Obstacles

(1) For the purposes of subsection 305.38(1) of the *Canadian Aviation Regulations*, the requirements in respect of marking a fixed obstacle or a mobile obstacle on the heliport are the following:

(a) in the case of a fixed obstacle:

(i) it shall be coloured,

(ii) where it is not physically possible to colour a fixed obstacle such as a large building, group of trees or pile of dirt, markers or flags shall be displayed on or above the obstacle,

(iii) where the use of colours are required:

(A) the colour and form of marking displayed on an obstacle shall be in accordance with Standard 621.19;

(iv) where the use of markers are required:

(A) a marker displayed on or adjacent to an obstacle shall be located so as to retain the physical outline of the obstacle,

(B) the shape of a marker shall be physically different to ensure that it is not mistaken for a marker employed to convey other information,

(C) a marker displayed on overhead wires or catenaries shall comply with the requirements of Standard 621.19, and

(D) when installed, the colour of a marker shall contrast with the background against which it will be seen, and

(v) where the use of flags are permitted by Standard 621.19:

(A) flags used to mark a fixed obstacle shall be displayed around, on top of, or around the highest edge of the obstacle,

(B) when flags are used to mark a large obstacle or a group of closely spaced obstacles, they shall be displayed at least every 15 m,

(C) flags used to mark fixed obstacles shall be orange in colour or a combination of orange and white. If orange or a combination of orange and white merge with the background, other easily identifiable colours shall be used;

(b) in the case of mobile obstacles:

(i) a mobile obstacle that requires marking to be easily identifiable, other than an emergency vehicle, shall be coloured or marked by flags,

(ii) an emergency vehicle shall be coloured red or lime green,

(iii) flags used to mark a mobile obstacle shall

(A) be rectangular and not less than 0.9 m on each side, and

(B) consist of a checkered pattern, with each square having sides of not less than 0.3 m, and

(iv) the colours of the chequered pattern on the flag shall

(A) contrast with each other and with the background against which they will be seen, and

(B) be orange and white or red and white unless those colours do not contrast with the background.

325.39 Lighting Obstacles

(1) For the purposes of subsection 305.39(2) of the *Canadian Aviation Regulations*, the requirements in respect of displaying lights on maintenance and service vehicles in use, are the following:

(a) maintenance and service vehicles shall display strobe (capacitor discharge) type warning lights as follows:

(i) 360 degree azimuth coverage,

(ii) emission in yellow colour chromatically within the boundaries defined by the International Society of Automotive Engineers (SAE) Standard J578,

(iii) a signature characteristic composed of repeated cycles each containing at least three flashes, with the last two flashes having a separation of not more than 280 ms,

(iv) a repetition rate of 75 ± 15 cycles per minute,

(v) effective intensity not less than 80 candelas,

(vi) automatic high/low selection for day/dusk operation respectively,

(vii) instantaneous peak intensity of each flash not more than 150,000 candela for the low (day) selection and not more than 300,000 candela for the high (dusk) selection,

(viii) a beam centre elevation of 3 degrees above the horizontal, and

(ix) a beam spread measured at half the intensity points of not less than 6 degrees.

(2) For the purposes of subsection 305.39(3) of the *Canadian Aviation Regulations*, emergency vehicles that are required to be lighted by any authority other than Transport Canada, shall display flashing lights when the vehicles are in use on the heliport.

DIVISION XI — HELIPORT REQUIREMENTS — VISUAL AIDS FOR DENOTING RESTRICTED USE AREAS

325.41 *Visual Aids for Denoting Restricted Use Areas*

Closed FATO and Other Areas

(1) For the purposes of subsection 305.41(1) of the *Canadian Aviation Regulations*, closed area markings shall be in accordance with the following requirements and characteristics as outlined in Figure 7-1:

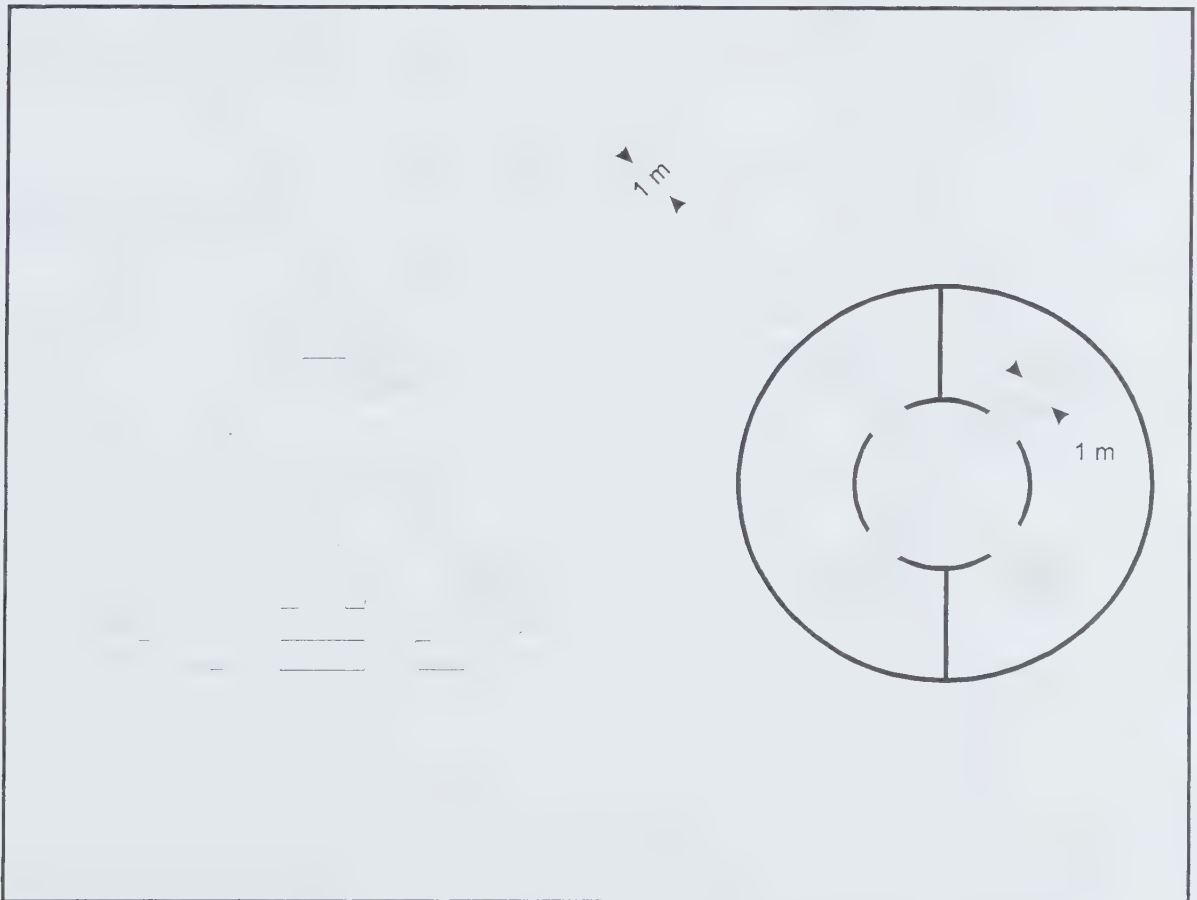


Figure 7-1 Closed FATO and helicopter parking position marking

(a) the requirements for closed markings are the following:

- (i) a closed marking shall be displayed on a FATO, helicopter parking position, taxiway, or on any part of those areas, which is permanently closed to the use of all aircraft,
- (ii) when an area of the heliport is temporarily closed or the area is snow covered, the heliport operator need not display a closed marking if a notice of the closure is contained in the *Canada Flight Supplement* (CFS) or has been reported in a *Notice to Airmen* (NOTAM),
- (iii) a closed marking shall be superimposed on the aiming point marking of a closed FATO,
- (iv) a closed marking shall be applied on any helicopter parking position associated with a closed FATO,
- (v) a closed marking shall be placed, at a minimum, at each end of a taxiway or part of a taxiway that is closed, and
- (vi) when a FATO, helicopter parking position, taxiway or part of those areas is permanently closed
 - (A) all normal markings shall be obliterated, and
 - (B) lighting shall not be operated except when required for maintenance purposes;

(b) the characteristics of closed markings are the following:

- (i) a closed marking shall be an X that is white when displayed on a FATO and yellow when displayed on a taxiway or a helicopter parking position,

Information Note:

When an area is temporarily closed, frangible barriers or markings using materials other than paint, such as plastic sheeting or wood, may be used to identify the closed area.

- (ii) on a FATO, the closed marking shall be larger than the size of the aiming point marking by at least 25% in accordance with Figure 7-1 and,
- (iii) on a helicopter parking position a closed marking shall be superimposed on the inner circle and shall cover at least 75% of the diameter of the outer circle in accordance with Figure 7-1.

Non Load-Bearing Surfaces

(2) For the purposes of subsection 305.41(3) of the *Canadian Aviation Regulations*, the requirements in respect of non-load bearing surfaces are the following:

- (a) where shoulders for taxiways, aprons and other non load-bearing surfaces which cannot be easily distinguished from (OR: would not be easily identifiable amongst) load-bearing surfaces and which, if used by an aircraft might result in damage to the aircraft, the

boundary between those areas and the load-bearing surface must be marked by a taxi edge stripe marking; and

(b) a taxi edge stripe marking shall be placed, with the outer edge of the marking along the outer edge of the load-bearing pavement.

Unserviceability Markers

Information Note:

Unserviceability markers and lights are used for such purposes as warning pilots of a hole in a taxiway or apron pavement or outlining a portion of pavement that is under repair. They are not suitable for use for a portion of an elongated FATO or a taxiway when a major portion of the width becomes unserviceable. In such instances, the FATO or taxiway should be closed.

(3) For the purposes of subsection 305.41(4) of the *Canadian Aviation Regulations*, the requirements in respect of unserviceability markers, are the following:

- (a) unserviceability markers shall be displayed on any part of a taxiway or apron that is unfit for the movement of aircraft;
- (b) unserviceability markers shall be flags, cones, or marker boards;
- (c) an unserviceability cone shall be at least 0.5 m high and red or international orange in combination with white;
- (d) an unserviceability flag shall be at least 0.5 m square and red or international orange in combination with white;
- (e) an unserviceability marker board shall be at least 0.5 m high and 0.9 m long, with alternate red and white or international orange and white vertical stripes; and
- (f) unserviceability markers shall be placed at intervals that permit to delineate the unserviceable area.

Unserviceability Lights

(4) For the purposes of subsection 305.41(5) of the *Canadian Aviation Regulations*, the requirements, in respect of unserviceability lights are the following:

- (a) unserviceability lights shall be displayed wherever any portion of a taxiway or apron used at night is unfit for the movement of aircraft;
- (b) unserviceability lights shall be placed at intervals that permit the unserviceable area be delineated; and
- (c) an unserviceability light shall consist of a red fixed light intense enough to allow it to be easily identifiable in relation to adjacent lights and the general level of illumination against which it will be viewed but in no case, less than 10 candela.

**DIVISION XII — HELIPORT REQUIREMENTS —
EQUIPMENT AND INSTALLATIONS****325.43 *Equipment and Installations*****(1) Electrical Systems**

Reserved

Fencing

(2) For the purposes of subsection 305.43(2) of the *Canadian Aviation Regulations*, the technical specifications in respect of fences or other barriers installed on the heliport, are the following:

(a) a fence or other barrier shall be provided on a heliport, as specified in the HOM, to prevent the inadvertent or unauthorized entry of persons, vehicles or animals;

Information Note:

In addition to the specifications contained below, heliports that receive scheduled passenger service may require additional security measures. See the Aerodrome Security Regulations.

(b) a fence or barrier shall be located, as specified in the HOM, outside of the safety area;

(c) a fence or barrier shall not project into an obstacle limitation surface associated with an instrument heliport;

(d) a fence at a non-instrument H3 heliport shall not project into the following surfaces:

(i) outer edge of FATO,

(ii) height, FATO edge elevation,

(iii) slope, 8 per cent (1:12.5), and

(iv) width, same as the associated approach/take-off surface;

(e) a fence at a non-instrument H2 heliport shall not project into the following surface:

(i) outer edge of FATO,

(ii) height, FATO edge elevation,

(iii) slope, 12 per cent (1:8.3) for a single approach/departure path,

(iv) slope, 16 per cent (1:6.25) where 2 or more approach/departure paths are available, and

(v) width, same as the associated approach/take-off surface; and

(f) where a fence is established less than 3 m outside the boundary of the safety area, the fence shall not be higher than 1.25 m above the elevation of the associated FATO edge.

Heliport Vehicle Operation

(3) For the purposes of subsection 305.43(3) of the *Canadian Aviation Regulations*, the requirements in respect of heliport vehicle operations are the following:

Information Note 1:

Guidance on aerodrome vehicle operations is contained in the Manual of Airport Traffic Directives for the Operation of Vehicles on Airport Movement Areas TP 2633.

Information Note 2:

Roads located on the movement area should be restricted to the exclusive use of heliport personnel and other authorized persons. Access to public buildings by an unauthorized person should not require the use of roads located on the movement area.

(a) a vehicle shall be operated

- (i) on a movement area, under the direction of the air traffic services unit or the airport or heliport operator or a person working under the authority of that operator, and
- (ii) on the apron, under the direction of the heliport operator or a person working under his or her authority;

Information Note:

At heliports where air traffic services, an authorized approach UNICOM or a community airport radio station are not provided, the requirement to equip vehicles with radios will be determined by the heliport operator taking into account the density of air traffic, the visibility under which operations are intended, the complexity of the heliport layout and the number of vehicles operating as specified in the HOM.

(b) the driver of a vehicle on the movement area shall comply with all mandatory instructions conveyed by marking and signs unless

- (i) otherwise authorized by the air traffic services unit, the heliport operator or a person acting under his or her authority when on the movement area, or
- (ii) giving way to aircraft;

(c) the driver of a vehicle on the movement area shall be trained for the tasks to be performed and shall comply with the instructions issued by the air traffic services unit, heliport operator or a person acting under his or her authority when on the movement area;

(d) where air traffic services, an authorized approach UNICOM or a community airport radio station are provided at a heliport or instrument approach procedures are in place

- (i) vehicles operating on the movement area shall be equipped with two-way radio communication or be accompanied by a vehicle or person with radio communication equipment, and

- (ii) a radio-equipped vehicle shall have two-way radio communication with the unit on the mandatory frequency before entering the movement area;
- (e) where air traffic services, an authorized approach UNICOM or a community airport radio station are not provided or during any period where those services are not available, a radio-equipped vehicle shall
 - (i) before entering or changing location on the movement area, broadcast their position and intentions on the mandatory frequency or air traffic frequency,
 - (ii) when on the movement area, advise pilots of their position and intentions,
 - (iii) when requested, provide the location of other known ground traffic on the movement area, and
 - (iv) give way to aircraft at all times; and
- (f) the driver of a radio-equipped vehicle shall maintain a continuous listening watch on the mandatory frequency when on a movement area.

Siting, Construction and Installations of Equipment

(4) For the purposes of subsection 305.43(5) of the *Canadian Aviation Regulations*, the requirements for the location, the construction and the installation of equipment required for air navigation purposes are the following:

- (a) any equipment or installation that is required for air navigation purposes shall be of minimum practical mass and height, be frangible and sited in such a manner as not to create a safety hazard to aircraft.

Maintenance

(5) For the purposes of subsection 305.43(6) of the *Canadian Aviation Regulations*, the requirements in respect of visual aids, FATO lights and centre line lights on taxiways are the following:

- (a) in the case of visual aids:
 - (i) shall be subject to a system of preventive maintenance, as specified in the HOM, to ensure that the lights and marking are reliable, and
 - (ii) a light is considered to be unserviceable when its output intensity, output luminance, or, if an isocandela diagram is applicable to the specification of the light's performance, its main beam average intensity, is less than 50% of the originally available design value;

Information Note:

These specifications are not intended to define the operational failure of a lighting system.

(b) in the case of FATO/TLOF lights:

- (i) no more than 10% of the lighting system or 2 lights, whichever is greater, of the FATO/TLOF edge lights shall be unserviceable, and
- (ii) an unserviceable light shall not be permitted adjacent to another unserviceable light; and

Information Note:

With respect to FATO edge lights, lights are considered to be adjacent if located in sequence in the same row of edge lights.

- (c) adjacent centre line lights on a taxiway intended for use in runway visual range conditions in the order of 1200 ft or less shall not be unserviceable at the same time.

DIVISION XIII — EMERGENCY AND OTHER SERVICES

325.45 Emergency Response Plan

(1) For the purposes of subsection 305.45(5) of the *Canadian Aviation Regulations*, the following information shall be included in the Heliport Emergency Response Plan:

- (a) the types of emergencies planned for;
- (b) how to initiate the plan for each emergency specified;
- (c) the name of agencies on and off the heliport to contact for each type of emergency with telephone numbers or other contact information;
- (d) the role of each agency for each type of emergency;
- (e) a list of pertinent on-heliport services available with telephone numbers or other contact information;
- (f) a copy of any written agreement with other agencies for mutual aid and the provision of emergency services; and
- (g) a grid map of the heliport and its immediate vicinity.

325.46 Fire Protection

(1) For the purposes of subsection 305.46(1) of the *Canadian Aviation Regulations*, the requirements in respect of fire protection for a surface level certified heliport or for a heliport over a parking garage or an elevated structure are the following:

- (a) above ground flammable liquid storage tanks, compressed gas storage tanks, and liquefied gas storage tanks shall be located at least 15 m from the edge of the FATO;
- (b) the heliport shall have at least one access point that provides rapid access to fire-fighting personnel;

(c) the heliport shall be pitched or sloped so that drainage flows away from access points and passenger holding areas; and

(d) no smoking signs shall be erected at access and egress points of the heliport.

(2) For the purposes of subsection 305.46(2) of the *Canadian Aviation Regulations*, the requirements in respect of fire protection for a rooftop heliport, are the following:

(a) main structural support beams that could be exposed to a fuel spill shall have a fire-resistance rating of not less than 2 hours;

(b) the TLOF shall be pitched to provide drainage that flows away from passenger holding areas, access points, stairways, elevator shafts, ramps, hatches, and other openings not designed to collect drainage;

(c) the TLOF surface shall be constructed of non-combustible, non-porous materials;

(d) at least two means of egress from the TLOF shall be provided;

(e) the helicopter rooftop landing pad shall have at least two access points that provide rapid access to fire-fighting personnel;

(f) where buildings are provided with a fire alarm system, a manual pull station shall be provided near each designated means of egress from the roof;

(g) no smoking signs shall be erected at access and egress points of the heliport; and

(h) flammable liquids, compressed gas, and liquefied gas shall not be permitted within the approach/departure path.

325.47 Extinguishing Agents and Equipment

(1) For the purposes of subsection 305.47(1) of the *Canadian Aviation Regulations*, the performance standards for fire-fighting equipment and agents based on the longest helicopter for which the heliport is certified are the following:

Helicopter overall length	Surface level and elevated Heliports	Rooftop Heliports
Up to but not including 15m	*Extinguisher with a minimum rating of 4-A: 80-B	*Extinguisher with a minimum rating of 40-A: 320-B or Hose line capable of producing a foam solution at 150 L/min. for a minimum of two minutes or Foam fixed system capable of producing 4.1 L/min. per m ² and covering the entire roof landing pad for 5 minutes
15m and up to but not including 25m	*Extinguisher with a minimum rating of 10-A:120-B	Hose line capable of producing a foam solution at 325 L/min. for a minimum of two minutes or Foam fixed system capable of producing 4.1 L/min. per m ² and covering entire roof landing pad for 5 minutes
25m and up to but not including 35m	*Extinguisher with a minimum rating of 30-A: 240-B	Hose line capable of producing a foam solution at 1000 L/min. for a minimum of two minutes or Foam fixed system capable of producing 4.1 L/min. per m ² and covering the entire roof-landing pad for 5 minutes.
<p>* One or more extinguishers or systems may satisfy the requirements.</p> <p>Note: Extinguisher ratings are according to certification testing under the applicable Underwriter Laboratory of Canada (ULC) Standard.</p>		

(2) For the purposes of subsection 305.47(2) of the *Canadian Aviation Regulations*, the requirements in respect of extinguishing agents are the following:

(a) where a foam concentrate is provided as an extinguishing agent, it shall

(i) comply with the specifications of the Underwriters Laboratory of Canada (CAN-ULC S560), and

(ii) be suitable for the type of equipment to be used at the heliport;

(b) where foam concentrates of different types or from different manufacturers are provided as extinguishing agents, they shall not be mixed unless the Underwriters Laboratory of Canada has established, under the applicable ULC Standard, that they are completely interchangeable and compatible;

(c) where a dry chemical is provided as an extinguishing agent it shall

(i) comply with the specifications of the Underwriters Laboratory of Canada (CAN-ULC S514), and

(ii) be suitable for the type of equipment to be used and compatible with the foam selected at the heliport; and

(d) where there is any possibility that a fire-fighting extinguisher or a system will freeze, freeze protection shall be provided.

325.49 Training for Safety Personnel

(1) For the purposes of subsection 305.49(1) of the *Canadian Aviation Regulations*, the initial and refresher training aimed at providing the safety personnel with the knowledge and skills necessary to deal effectively with an emergency at a heliport, shall comprise of the following subjects:

- (a) familiarization with the operation of the heliport;
- (b) safety procedures around helicopters during ground operations;
- (c) the use and functioning of the communication systems at the heliport;
- (d) familiarization with the heliport emergency plan; and
- (e) the use of any equipment, among the following, which is provided at the heliport:
 - (i) portable fire extinguishers,
 - (ii) fire hoses, nozzles and other similar appliances, and
 - (iii) extinguishing agents.

DIVISION XIV — HELIPORT OPERATIONS MANUAL

Reseved

DIVISION XV — SAFETY MANAGEMENT SYSTEM

Reseved



CARs

CANADIAN AVIATION REGULATIONS

PART III - AERODROMES AND AIRPORTS

STANDARD 328 - AIRCRAFT EMERGENCY INTERVENTION AT AIRPORTS

Repealed [2006/06/30]

Canada

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CANADIAN AVIATION REGULATIONS

PART III – AERODROMES, AIRPORTS AND HELIPORTS

***ADVISORY 342 - ADVISORY DOCUMENT
COMPLEMENTING REGULATIONS AND STANDARDS
RESPECTING AIRPORT WILDLIFE MANAGEMENT
AND PLANNING***

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ADVISORY DOCUMENT 342

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PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

ADVISORY DOCUMENT 342 COMPLEMENTING REGULATIONS AND STANDARDS RESPECTING AIRPORT WILDLIFE MANAGEMENT AND PLANNING

(amended 2006/05/05)

342.305 *Airport Wildlife Management Plan*

(1) Wildlife Hazards

(a) Airport Habitat and Food Sources Related to Wildlife Hazards

The following features and activities should be monitored by the operator of the airport to identify conditions that may be attractive to wildlife:

- (i) agricultural crops (e.g., grains, forage, legumes, etc.);
- (ii) animal remains;
- (iii) apiaries;
- (iv) aquatic vegetation;
- (v) canals, creeks;
- (vi) compost facilities;
- (vii) culverts (open);
- (viii) drainage ditches;
- (ix) earthworms;
- (x) feeding of birds and mammals (by people);
- (xi) flat roofs (gull nesting or resting sites);
- (xii) fishing from shore (e.g., bait, fish);
- (xiii) garbage dumps, garbage containers;
- (xiv) golf courses;
- (xv) insects;
- (xvi) landfills containing organic matter;
- (xvii) landscaping;

- (xviii) litter;
- (xix) low areas (e.g., puddles);
- (xx) marshes, swamps;
- (xxi) mud flats;
- (xxii) nesting sites (e.g., gulls, raptors, etc.);
- (xxiii) oxidation ponds (e.g., sewage, de-icing fluid);
- (xxiv) pastures, grassland (e.g., livestock, ungulates, rodents, raptors, etc.);
- (xxv) ploughing, cultivation, haying, harvesting, etc. (e.g., rodents, insects, worms);
- (xxvi) reptiles, amphibians, fish;
- (xxvii) reservoirs, lakes, natural and man-made ponds;
- (xxviii) restaurants and aircraft waste;
- (xxix) retention ponds (e.g., water, de-icing fluid);
- (xxx) rodents, beavers, muskrats, rabbits, hares, raccoons, skunks, badgers, etc.;
- (xxxi) roosting vegetation (e.g., starlings, crows, etc.);
- (xxxii) runways and taxiways;
- (xxxiii) sand and gravel quarries, borrow pits;
- (xxxiv) seed producing vegetation;
- (xxxv) sewage lagoons;
- (xxxvi) sewage outfalls;
- (xxxvii) sewage sludge;
- (xxxviii) shorelines;
- (xxxix) structures (e.g., buildings, hangars, lights, towers, signs, poles, etc.);
- (xl) trees, brush, shrubs, woodlots (e.g., cover, browse, etc.);
- (xli) water fountains;
- (xlii) waterways; and
- (xliii) weeds.

(b) Off-Airport Land Uses and Food Sources Related to Wildlife Hazards

The following features and activities should be monitored by the operator of the airport to determine whether they attract wildlife whose behaviour patterns may pose a threat to airport operations:

- (i) abattoirs;
- (ii) agricultural crops (e.g., grains, forage, legumes, etc.);
- (iii) apiaries;
- (iv) bird feeding stations;
- (v) canals, creeks;
- (vi) coastal commercial fish processing plants;
- (vii) compost facilities;
- (viii) drive-in theatres;
- (ix) fish waste outfall;
- (x) fishing from shore (e.g., bait, fish);
- (xi) flat roofs (gull nesting or resting sites);
- (xii) garbage barges;
- (xiii) garbage dumps;
- (xiv) golf courses;
- (xv) landfills containing organic waste;
- (xvi) livestock feedlots, piggeries;
- (xvii) lure/decoy sites (e.g., roosting, nesting, etc.);
- (xviii) marinas,
- (xix) marshes swamps;
- (xx) mud flats;
- (xxi) nesting sites (e.g., gulls, raptors, etc.);
- (xxii) orchards, berry farms;
- (xxiii) oxidation ponds (e.g., sewage, feedlots, etc.);
- (xxiv) pastures, grassland (e.g., livestock, ungulates, rodents, raptors, etc.);
- (xxv) picnic areas;
- (xxvi) plowing, cultivation, haying, harvesting (e.g., rodents, insects, worms);

- (xxvii) reservoirs, lakes, natural and man-made ponds;
- (xxviii) restaurants/cafes (outdoors);
- (xxix) retention ponds (e.g., water, feedlots, etc.);
- (xxx) roosting vegetation (e.g., starlings, crows, etc.);
- (xxxi) sand and gravel quarries, borrow pits;
- (xxxii) seed producing vegetation;
- (xxxiii) sewage lagoons;
- (xxxiv) sewage outfalls;
- (xxxv) sewage sludge;
- (xxxvi) shorelines;
- (xxxvii) trees, brush, shrubs, woodlots (e.g., cover, browse, etc.);
- (xxxviii) vineyards;
- (xxxix) waste transfer stations; and
- (xl) waterfowl refuges, wintering areas.

(c) Other Issues Related to the Management of Wildlife Hazards On or In the Vicinity of Airports

The following may aid the operator of the airport in efforts to minimize the potential for aircraft and wildlife interactions:

- (i) address wildlife hazards within 15 minutes prior to the arrival or departure of aircraft;
- (ii) interact with local jurisdictions and land owners about zoning, land use, and the resolution of wildlife hazard problems in the vicinity of aerodromes;
- (iii) monitor bird concentrations (e.g., local movements);
- (iv) operation of a wildlife patrol system with trained Wildlife Management Officers, conducting surveillance/inspections of critical aerodrome areas (e.g., runways, etc.), and effecting wildlife management actions when needed or requested; and
- (v) provision of wildlife hazard awareness material to staff, tenants, stakeholders, and adjacent land owners.

(2) Bird Control

The following actions include a range of options that may minimize the potential for bird and aircraft interaction:

(a) To Disperse, Deter, Exclude, Repel

- (i) avitrol or similar chemicals;
- (ii) balloons suspended above or flagging tape stretched across ponds;
- (iii) bioacoustics;
- (iv) chemical repellents;
- (v) draining impoundments, ponds, low areas;
- (vi) electronically generated noise;
- (vii) falconry;
- (viii) border collies;
- (ix) grass management;
- (x) lure/decoy sites;
- (xi) netting;
- (xii) plastic or steel wires;
- (xiii) porcupine wire or hot foot;
- (xiv) propane cannons;
- (xv) pruning vegetation;
- (xvi) pyrotechnics;
- (xvii) shooting to scare;
- (xviii) spray for insect infestation;
- (xix) spray for worms and/or sweep runways and other movement areas;
- (xx) stuffed birds, gull models, raptor decoys, agony postures; and
- (xxi) vehicle patrols.

(b) To Remove

- (i) drugging;
- (ii) nest and egg destruction, oiling eggs;

- (iii) poisoning;
- (iv) shooting; and
- (v) trapping and relocation (e.g., raptors, geese).

(3) Mammal Control

The following actions include a range of options available that may minimize the potential for aircraft and mammal interactions:

(a) To Disperse, Deter, Exclude, Repel

- (i) cattle gate;
- (ii) chemical repellents;
- (iii) fencing;
- (iv) herding;
- (v) pyrotechnics;
- (vi) rodent resistant sheathing on electrical and communication cables; and
- (vii) vehicle patrols.

(b) To Remove

- (i) controlled hunting (e.g., deer, canines);
- (ii) den destruction (e.g., foxes, coyotes);
- (iii) fumigants/gas cartridges (e.g., woodchucks, coyotes);
- (iv) kill trapping (e.g., beavers, muskrats);
- (v) live trapping and relocation or euthanasia (e.g., dogs, etc.);
- (vi) rodenticides (e.g., mice, ground squirrels, etc.);
- (vii) shooting (e.g., woodchucks, badgers, rabbits, hares, etc.); and
- (viii) tranquilizing and relocation (e.g., deer, bear).



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CANADIAN AVIATION REGULATIONS

PART III - AERODROMES, AIRPORTS AND HELIPORTS

***343 - ADVISORY DOCUMENT COMPLEMENTING
REGULATIONS AND STANDARDS RESPECTING AIRCRAFT
FIRE FIGHTING AT AIRPORTS AND AERODROMES***

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**ADVISORY DOCUMENT 343
COMPLEMENTING
REGULATIONS AND STANDARDS RESPECTING
AIRCRAFT FIRE FIGHTING AT AIRPORTS
AND AERODROMES**

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Foreword

This advisory information provides guidance material for acceptable means, but not the only means, of demonstrating compliance with the requirements of Subpart 303 of the *Canadian Aviation Regulations* (CARs), dealing with Aircraft Fire Fighting (AFF). It also contains supplemental guidance information related to the subject.

For ease of cross-reference, the divisions and numbers of the Advisory Document are assigned to correspond to the standards and regulations. For example, Section 343.08 of the CARs (Advisory Document) would reflect information relating to Section 323.08 or Section 303.08 of the CARs.

PART III – AERODROMES, AIRPORTS AND HELIPORTS

(amended 2007/06/30)

ADVISORY DOCUMENT 343 COMPLEMENTING REGULATIONS AND STANDARDS RESPECTING AIRCRAFT FIRE FIGHTING AT AERODROMES AND AIRPORTS

343.01 *Interpretation*

The following terms may be used by fire-fighters while conducting Aircraft Fire Fighting (AFF) services.

“AFF training organization” means an organization recognized by Transport Canada including:

- (a) an airport/aerodrome publishing AFF in the Canada Flight Supplement (CFS) which has a designated trained person on staff; or
- (b) an AFF training establishment accredited by federal, provincial or territorial governments or International Fire Service Accreditation Congress (IFSAC).

“Assigned position” means the location where the AFF vehicles and staff are normally stationed during flight operations, which is normally the fire station.

“Designated training person” means a person who:

- (a) has a training certificate in instructional training techniques;
- (b) has certification in the subject matter issued by an AFF training organization; and
- (c) is accountable to the AFF training organization to maintain records and endorse competency certificates.

343.04 *Hours of Operation of an Aircraft Fire-fighting Service*

(1) The air operators that are consulted are those referred to in the document as commercial passenger-carrying operators.

(2) The established hours of operation will be published. The term PNR can only be used to identify service availability outside those published hours.

NOTE: *PNR can not be solely published.*

343.06 *Aircraft Movement Statistics*

(1) Statistics should include:

- (a) types of aircraft landing and taking off; and
- (b) time of day.

343.08 *Extinguishing Agents and Equipment*

(7) Complementary Agents

The following methodology should be applied by the airports for the annual testing of the Aircraft Fire Fighting equipment that dispense the complementary agent required for systems used to meet complementary agents requirements stipulated in Section 303.09 of the CARs.

- (a) This procedure provides a testing methodology to facilitate the annual test without undue burden on the individual airports carrying out the test. Performance should be within the manufacturer's specification for the tested equipment. Airports should record and maintain results of the test on file for each fire fighting outlet tested.
- (b) This procedure is applicable to systems designed for the application of potassium bicarbonate meeting CAN-ULC S514 Standard used to meet regulated complementary agents requirements at airports and aerodromes.

NOTE: *The material to be used as reference should be as follows:*

- (i) *National Fire Protection Association (NFPA) Standard 414;*
- (ii) *Underwriters' Laboratories of Canada (ULC) Standard 514 and 508-90.*
- (c) The results of three elements tested (agent flow rate, effective reach and system pressure lost) should be compared to previous tests of the same system, or to test of similar systems, and with manufacturer's data to ensure that the level of performance and effectiveness have not degraded.
 - (i) This test procedure does not have the accuracy of the acceptance criteria of a new system. Tolerances of plus or minus 10% are deemed acceptable. Effective reach should be as per the NFPA Standards.
 - (ii) The 10% flow rate tolerance is calculated from the manufacturer's specified flow rates; i.e. - a nozzle specified for a flow of 3.5 KG per second should have an actual discharge between 3.15 KG per second and 3.85 KG per second (3.5 KG plus or minus 0.35 KG). For turret reach, the NFPA standard requires that the agent reach 100 feet, but there is no requirement for effectiveness testing. If during the effective reach test, a turret cannot effectively extinguish the fire at 25 meters, records should be kept on how far the agents were reaching.

(iii) The third item, low pressure leaks system, should be evaluated not to affect system effectiveness during a reasonable period of wait with the system charged. Ideally no leakage should occur.

(d) The required equipment should be as follows:

- (i) measuring tape;
- (ii) stop watch;
- (iii) flammable liquid;
- (iv) 10 metal containers approximately 280 mm in diameter by 76 mm high (11 X 3 inches);
- (v) graph paper, pad and pencil;
- (vi) test report sheets; and
- (vii) calibrated anemometer, if weather information for the test site is not available.

(e) The following information should be recorded for each fire-fighting outlets tested:

- (i) vehicle identification (brand, type, capacity, airport designation);
- (ii) serial number of truck mounted dry chemical pressure vessel;
- (iii) provincial/territorial pressure vessel approval number;
- (iv) date of last provincial/territorial pressure vessel inspection;
- (v) type and brand of agent, batch and specification numbers;
- (vi) date of test;
- (vii) temperature (if the outside temperature is different than the system temperature, it should be noted);
- (viii) wind velocity and weather observations;
- (ix) wind direction in relation to nozzle/turret;
- (x) dry chemical flow rate as tested and as per manufacturer's specifications;
- (xi) dry chemical effective reach of stream; and
- (xii) pressure lost in KPA minutes or note if there is no loss.

NOTE: *If the net weight of an agent is not recorded on the containers, the net weight of an agent should be calculated by weighing a full container and comparing the weight with that of an empty container.*

(f) Test procedures:

(i) General

A thorough inspection of system components (hoses, nozzles, reels, valves etc.) should be conducted to ensure that the system is safe, functional and that the dry chemical container is filled to the recommended level.

(A) Test facilities consist of a level open site suitable for discharging the dry chemical agents and of sufficient size for discharging measuring ranges.

(B) Temperature should be within the operating range of the equipment tested, wind conditions should be less than 8 kph.

(C) The test is to be conducted after the dry chemical container has been emptied and recharged with the exact quantity of agent recommended by the manufacturer and visual record of dry chemical level in the vessel. This will allow for a better comparison when calculating the agent usage. A more accurate testing would require removal of the dry chemical vessel for weighing.

(D)

CAUTION:

The persons conducting the test should be wearing protective clothing as the handling and burning of flammable liquid dictates.

(ii) Specific

(A)

CAUTION:

For hose reel, pull all the hose off to ensure that agent will not be obstructed.

(B) Based on the manufacturer's discharge specifications, estimate the discharge time for the specific outlet tested to discharge between 50 to 70 percent of the total dry chemical capacity.

- (C) Position the first container at the centre of the estimated reach of the selected outlet when the wind is parallel to the axis of the nozzle stream. Position the nine other containers in the same axis distanced equally three metres from each other. The nearest container should be at 15 meters from roof turrets and at five meters from handlines nozzles. All metal containers should be on secure stands raising the top of the containers (fire level) to at least 1 meter from the ground.
- (D) Clearly mark where the nozzle/turret end will be positioned during discharge.
- (E) Fill metal containers to within 25 mm of top with water.
- (F) Pressurize the system using the manufacturer's recommended procedure. Do not open the nozzle to allow filling the hose as this would lower the level of agent in the vessel, consequently, making it more difficult to calculate agent replacement.
- (G) Place approximately 13 mm of flammable liquid in the metal containers and ignite.
- (H) Discharge with nozzle/turret fully open without interruption for the time estimated in (B) (calculated 50-70%) while attempting to extinguish the fires in the metal containers. The nozzle discharge should be aimed at or in front of the first container with no vertical movements allowed.
- (I) Close discharge valve at the time calculated in clause 343.08(7)(f)(ii)(B).
- (J) Leave system pressurized for at least 30 minutes to monitor low and high pressure loss. The pressure should stabilise and remain constant for this period. If a leak is found, the system must be verified and repaired.
- (K) Record pressures at regular intervals of five minutes.
- (L) Record the distance of the effective reach. The last container of burning liquid extinguished starting from the closest distance in sequence and without miss is used for this purpose. (A container of burning liquid extinguished further to one still burning is not considered.) The following example will further illustrate this procedure.

EXAMPLE:

The following are two types of tests that may be used.

Test 1 - Testing the turret on the vehicle:
(reach of stream is 30m)

- * The first container is 15 meters (half the estimated reach of stream of the turret) from the turret.
- * The rest are spaced equally 3 meters apart from each other.

- * All containers (with the top of the containers raised to at least 1 meter from the ground) contain water and 13mm ignited fuel on top.
- * Extinguishment is commenced to determine the reach of stream.
- * The last container extinguished in sequence starting from the first determines the reach of stream.

NOTE: *If the first seven fires are extinguished, number 8 is still burning and number 9 is extinguished, the seventh determines the effective reach of stream; which would give you an estimated reach of stream of 33 meters.*

Test 2 - Testing the handline on the vehicle:
(reach of stream is 15 m)

- * Utilize the same test method as above for the turret, only in this case the first or nearest container is 5m, as opposed to 15m in Test 1 (previous test).
(amended 2001/06/01)

(M) Vent the system using manufacturer's instruction without expelling agent.

(N) Open the dry chemical vessel and refill carefully to the same level calculating how many KG's of dry chemical are required to refill.

(O) Record the dry chemical flow rate using the following formula:

$$\frac{\text{KG of dry chemical for refill}}{\text{Time in seconds}} = \text{nozzle flow rate in KG per seconds}$$

(P)

CAUTION:

Where the system has not been purged of contaminants it may be necessary to let the agent settle and complete a full blow off procedure with clear Nitrogen.

(g) The airport operator should ensure that nitrogen cylinders are of the approved type and that they are tested and handled as per applicable provincial and federal standards.

343.10 Temporary Exemption

(2) The plan submitted by the airport operator should include at least the following:

- (a) a description of the problem;
- (b) a description of actions taken to attain accepted performance;

- (c) a description of immediate actions taken to correct;
- (d) a description of long-term measures to prevent reoccurrence; and
- (e) anticipated dates of outage.

343.12 *Adjustment to Higher Requirements*

(1) Notwithstanding the allowance in the regulation for having up to one year to adjust to higher requirements, airport operators are expected to make the adjustment as soon as operationally feasible.

(2) Suggest statistics be established from December 01 to June 01 to coincide with the implementation of the regulation.

343.13 *Minimum Personnel*

(1) Airport operators may require that trained aircraft fire-fighting personnel be assigned other duties at the airport, however, those trained firefighters should be:

- (a) in the state of readiness and in response posture at all times during the published hours of operation aimed at meeting the response time; and
- (b) the response readiness of all the other fire-fighting staff and vehicles should be aimed at ensuring the quick arrival of the complete fire-fighting capability required by the Table associated with Section 303.09 of the CARs.

(2) The numbers of required firefighters can be exceeded by fire-fighting recruits, however they should be identified as such and the numbers should not exceed that of responding firefighters.

343.14 *Training of Personnel*

The following terms may be used during the course of training:

“Incident Commander” means the individual responsible for the management of all incident operations.

“Optimum surface and visibility conditions” means daytime, good visibility, no precipitation, with normal response route free of surface contamination. Examples of surface contamination are water, ice or snow.

“Size-up” means a systematic process consisting of the rapid, yet deliberate, consideration of all critical fire ground factors and leads to the development of a rational attack plan based on these factors.

“Strategy” means the general overall approach of the operation and drives that attack plan.

“Strategic Plan (Defensive)” means a plan used when fire conditions prevent an interior attack. i.e. - large exterior fire streams will be placed between the fire and the exposures to prevent fire extension.

“Strategic Plan (Offensive)” means a plan used when fire conditions will allow an interior attack. i.e. - hand lines are extended into the fire area to support the primary search and to control the fire.

“Tactical Priorities” means the objectives that should govern action on the fire ground which are egress assistance, fire control, and property conservation.

(amended 2000/06/01)

(2) Level of Achievement to be Attained

(a)

(ii)

(J) Standard hand signals used to communicate information to an aircraft in a situation of emergency in the event of a discreet radio frequency failure.

(amended 2001/06/01)

Emergency hand signals are given to the flight crew by the firefighter assigned those duties. For the purpose of communicating manually with the flight crew of an aircraft in a situation of emergency, the emergency hand signals should be given from the left front side of the aircraft. In circumstances where more effective communications with the flight crew or flight attendant(s) are required, emergency hand signals may be given, from other locations.

(amended 2001/06/01)

1. Recommend Evacuation



Arm extended from body, and held horizontal with hand upraised at eye level. Execute beckoning arm motion angled backward. Non beckoning arm held against body.

Night: Same with wands

2. Recommend Stop (halt evacuation or measure in process)



Arms in front of head crossed at wrists

Night: Same with wands

3. Emergency Contained (No evidence of dangerous condition)



Arms extended outward and down at a 45 degree angle. Arms moved inward below waistline simultaneously until wrists crossed, then extended outward to starting position. (Umpire's "safe" signal)

Night: Same with wands

(b) Site Specific Training

(ii) It is the airport operator's responsibility to keep and maintain their aircraft data up to date. Crash charts are available from various sources (i.e. NFPA, Aircraft Manufacturer's, Airline etc.).

(3) Additional Training

(b) Command and Control Training

This Section provides information relative to the qualifications of fire-fighting personnel, specifically on the documentation which constitutes an acceptable level of achievement.

(i) Procedures for the evaluation of AFF personnel training are not specified in the Standard, due to the fact that an Airport Operator regulated under Subpart 303 of the CARs is legally bound to ensure that the training provided to all AFF personnel is in accordance with the requirements specified in the standards.

- (ii) The procedures outlined in this section should be applied by airports or aerodromes to document individual training records of the designated AFF personnel.
- (iii) The National Fire Protection Association (NFPA) Standards 1001, 1003 and NFPA Draft Standard 405 should be used as reference material for this section.
- (iv) The validation of firefighter qualifications should be conducted as follows:

(A) Knowledge and Skills training

Site specific training and additional training, where applicable, a firefighter is deemed to have met the generic training requirements set out in Section 303.14 of the CARs if he/she is employed by an aerodrome/airport publishing an AFF service and that the airport/aerodrome operator possesses in the employee's file the following records:

- (I) certificate or diploma issued by an AFF training organization attesting that the individual has attained the requisite level of achievement stipulated in the standards;
- (II) certificate issued by an airport training organization attesting that the individual has attained the requisite level of achievement stipulated in the standards; or
- (III) a combination of certificates issued by various AFF training organizations attesting that the individual has attained the requisite level of achievement stipulated in the standards.

(B) Recurrent Training

A firefighter is deemed to have met the recurrent training requirements of Section 303.14 of the CARs if the firefighter is employed by an aerodrome or airport publishing an AFF service and the airport/aerodrome operator has in the employee's file the following records:

- (I) endorsed records authenticating that training in each applicable element of Section 323.14 of the CARs, except for subparagraph 323.14(2)(a)(xi), has been satisfactorily completed in the last 36 months training cycle period; and
- (II) endorsed records authenticating that a live fire drill such as described in paragraph 323.14(4)(b) has been satisfactorily completed in the last 12 months live fire drill training cycle period.

343.16 Firefighter Qualifications

In addition to the ongoing training record requirements individual firefighter records should contain proof of all of the essential training received. This should be in the form of:

- (1) a certificate or diploma issued by an AFF training organization attesting that the individual has attained the requisite level of achievement stipulated in the standards;
- (2) a certificate issued by an airport training organization attesting that the individual has attained the requisite level of achievement stipulated in the standards; or
- (3) a combination of certificates issued by various AFF training organization attesting that the individual has attained the requisite level of achievement stipulated in the standards.

343.18 Response Test

Introduction

Response time is considered to be the time between the initial call to the AFF, and the time when the first vehicle(s) is/are at the selected location to apply fire-fighting agents at a rate of at least 50% of the discharge rate specified in CAR 303.09.

All vehicles must be in a response posture and capable of meeting the three minute response time. However, for test purposes, we ask only for the first vehicle to demonstrate compliance. The other(s) may be required to demonstrate that they can meet the response time if it is suspected they cannot meet the response time.

Any other AFF vehicle which is employed to meet the total requirement, capacity and discharge, should arrive to the selected location no more than one minute after the first responding vehicle to apply the quantities of fire-fighting agents at the required discharge rates specified in CAR 303.09. If the response test does not include all AFF vehicles as a minimum, the other AFF vehicle(s) discharge and operating capabilities should be tested and recorded to fully satisfy the requirement of paragraph 303.18.(4)(b).

- (1) The performance requirement stipulated contains two elements:

The time for the vehicle(s) to travel to the midpoint of the farthest runway serving commercial passenger-carrying aircraft and; the discharge capability of this vehicle or of the combination of the required vehicles, which is an important element of the effectiveness of the response. A flow test of each responding AFF vehicle should be conducted to ensure that the required discharge rates are adequate to meet the CAR 303.09 discharge capacity requirements.

(2) Recommended Test Procedures (vehicle(s) response)

(a) The equipment required is a stopwatch.

(b) The evaluator (timer) should:

(i) be located in a position to monitor the respective phase of the test. The evaluator should be in/at fire-hall for the first phase of the test;

(ii) either be in a position to see /hear both the alarm and the arrival (to a full stop) of the vehicle being tested, for the second phase;

(iii) either be mobile or in a position to observe the total test if one continuous time is being proposed.

(c) The following two types of testing may be used:

(i) a one phase test commences when the time is measured from the initiation of alarm in the fire-hall, with AFF staff in the stand down position, and ends when the vehicle being tested comes to a complete stop and commence water discharge at the midpoint of the farthest runway from initiation of the alarm;

(ii) a two phase test is as follows:

(A) Phase I should include a “surprise” alarm during normal operating hours when the AFF is in the stand down position. Time starts with the initiation of the alarm and ends when the vehicle(s) being tested are completely clear of the doors (outside the fire-hall);

(B) Phase II should include a pre-announced alarm from the ready position trucks which are running at a stand still position outside the fire-hall. This alarm should be initiated by radio or audible bell/horn. Time starts with the initiation of alarm and ends when vehicle comes to a complete stop and commences water discharge at the midpoint of the farthest runway from the fire-hall.

(3) Recommended Test Procedures (50% discharge requirements)

(a) The equipment required is a stopwatch.

(b) Immediately after the arrival of the vehicle(s) and their initial discharge, it is recommended to perform a flow rate test by discharging the complete water content of the vehicle(s) that are counted in the response test and calculate their relative discharge rate by the proportion of water versus the time to discharge it.

NOTE: The water should be discharged where it will not affect aircraft operation.

(4) The following information should be provided for the records:

(a) vehicle(s) identification;

(b) time in seconds for the response;

- (c) precise identification of the test response location;
- (d) confirmation of vehicle assigned position;
- (e) vehicle(s) capacity and manufacturer's specified discharge capacity; and
- (f) duration of water discharge in seconds (vehicle full, turret high flow).

NOTE: The information provided in paragraphs (e) and (f) should allow the evaluator to assess the vehicle discharge capability in litres per minutes.

343.19 Communication and Alerting System (amended 2001/06/01)

(5) Sample of site specific Agreement on Procedural Operational Arrangement between the Air Traffic Service and the Airport/Aircraft Fire Fighting Service operator establishing procedures for the utilization of a discreet Aircraft/AFF Frequency

Agreement on Procedural Operational Arrangement between (identify airport name) Airport Authority and (ATS facility)

EFFECTIVE on: (date)

SUBJECT: Discreet Aircraft Fire Fighting Communications – Operating Procedures

1. PURPOSE:

To establish operating procedures for direct radio communication between the (identify airport name) Aircraft Rescue and Fire Fighting – Incident Commander (AFF IC), and aircraft flight crew.

2. SCOPE:

The procedures outlined herein describe the conditions surrounding authorization, use, and limitations related to the use of Discreet Emergency Frequency (DEF) by aircraft flight crew, and AFF. This Agreement on Procedural Operational Arrangement is used in conjunction with, and subordinate to, the Agreement on Procedural Operational Arrangement between (identify name) airport authority and (ATS facility).

3. RESPONSIBILITIES:

Each party to this agreement is responsible for compliance by personnel under their authority with the provisions contained herein. Training and language capabilities of involved personnel is also the responsibility of the signatories.

4. AIRPORT AUTHORITY PROCEDURES:

a. Recognizing the (identify airport name) airport authority's overall control of the airport, it has the need to monitor the DEF in use during an emergency for awareness of the situation and for planning purposes. If an aircraft emergency is in progress, the DEF is designated for communications between the AFF IC and the flight crew.

b. The AFF IC, call sign (identify) shall initially utilize the ground control frequency established for emergency response and maintain contact with (ATS) on such frequency until directed to switch to the DEF. When the AFF IC has switched to the discreet frequency, he will have receiving capability on the normal ground frequency.

c. When directed to switch to the DEF, the AFF IC will utilize that frequency for emergency communications with the flight crew. ATS personnel will use the phraseology: "airport (AFF Call sign identified above)(aircraft call sign) on (frequency X)."

d. The AFF IC may request permission from (ATS identifier) to establish direct communications, on the DEF, with the flight crew of the aircraft involved in the emergency. The AFF IC shall receive direct authorization from (ATS identifier) and be assigned to the DEF prior to transmitting on it.

e. At no time during direct communication with the emergency aircraft shall the AFF IC issue aircraft movement instruction or clearance. Terminology on the DEF shall be in accordance with standard radio procedures.

f. The AFF IC shall notify the ATS on (ground control frequency) when the status of the emergency allows the release of the DEF. (ATS identifier) will then direct the emergency aircraft and all responding vehicles to return to the normal ground control frequency or as otherwise directed.

g. The airport authority shall maintain a log or a recording of all emergency communications on the established discreet radio frequency.

5. (ATS identifier) PROCEDURES:

a. Once an emergency response has been initiated, the ATS supervisor may elect to have a separate controller coordinate the emergency on the DEF.

b. The controller assigned to coordinate the emergency shall coordinate (with all appropriate operating positions) for the arrival of the aircraft and the intent/request of responding vehicles to proceed toward the site before issuing clearance for such.

c. Aircraft/vehicles already assigned to the DEF, but not involved in the emergency, shall remain on normal frequency.

d. ATS shall issue instructions for the AFF IC and aircraft to switch to the DEF. Phraseology: For AFF IC “(airport AFF call sign), contact (aircraft call sign) on (frequency X)”. For aircraft, “(aircraft call sign), contact (airport RFF call sign) on (frequency).”

e. When the DEF is in use, (ATS facility identifier) will issue control instructions and information to the flight crew and RFF vehicles on the DEF.

f. When notified by the AFF IC that the status of the emergency allows the release of the DEF, (ATS identifier) will then direct the emergency aircraft and all responding vehicles to return to the normal ground control frequency or as otherwise directed.

SIGNATURES:

Air Traffic Service Manager

Date

Airport Manager

Date

Chief, Aircraft Rescue and Fire Fighting

Date



CARs

CANADIAN AVIATION REGULATIONS

PART III - AERODROMES AND AIRPORTS

348 - ADVISORY DOCUMENT COMPLEMENTING REGULATIONS AND STANDARDS RESPECTING AIRCRAFT EMERGENCY INTERVENTION AT AERODROMES AND AIRPORTS

Repealed [2006/06/30]

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CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING



SUBPART 0 - GENERAL

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2011-2	2012/02/19	2012/03/06	

* All persons making use of this consolidation are reminded that it is not an "official" copy. The original regulations and amendments thereto, as published in Part II of the *Canada Gazette*, should be consulted for the purpose of officially interpreting and applying the regulations.

[illegible]

400 - GENERAL

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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 0 - GENERAL

DIVISION I - GENERAL

Interpretation

400.01(1) In this Part,

(amended 2001/03/01)

“aeroplane” - does not include an ultra-light aeroplane; (*avion*)

“aviation document booklet” means a booklet issued by the Minister in which certain documents issued under this Part can be affixed. (*carnet de documents d’aviation*)
(amended 2010/02/02)

“balloon” - includes any lighter-than-air aircraft; (*ballon*)

“booklet label” means a label that is intended to be affixed in an aviation document booklet.
(*étiquette de carnet*)
(amended 2010/02/02)

“complex aeroplane” means an aeroplane that has flaps and a constant-speed propeller and, except in the case of a seaplane, retractable landing gear; (*avion complexe*)
(amended 2006/12/14)

“dual instruction flight time” means the flight time during which a person is receiving flight instruction from a person qualified in accordance with section 425.21 of *the Personnel Licensing and Training Standards respecting Flight Training*; (*temps d’instruction de vol en double commande*)
(amended 2003/06/01)

“employed on a full-time basis” means working for a flight training unit on a continuous basis for at least the number of hours required to carry out the duties of the position intended to ensure the safe operation of the flight training service; (*employé à temps plein*)
(amended 2006/12/14)

“examination” - means any written examination or written practical qualifications examination required by the personnel licensing standards for the issuance of a permit or licence or for the endorsement of a permit or licence with a rating; (*examen*)

“flight following” means the monitoring of a flight's progress, the provision of any operational information that might be requested by the pilot-in-command, and the notification of the flight training unit and search-and-rescue authorities if the flight is overdue or missing; (*suivi de vol*)

(amended 2006/12/14)

“flight instructor experience”, with respect to the experience requirements for a flight instructor rating for an aeroplane or helicopter, means the flight time accumulated in an aeroplane or helicopter

(amended 2005/12/01)

(a) by a holder of a flight instructor rating while providing dual flight instruction to applicants for

(i) a pilot permit — recreational,

(ii) a private or commercial pilot licence, or

(iii) a night rating, VFR OTT rating, flight instructor rating — aeroplane, flight instructor rating — helicopter or flight instructor rating — aeroplane — aerobatic,

(b) by a holder of a foreign flight instructor rating issued by a contracting state, while providing dual flight instruction to an applicant for a permit, licence or rating equivalent to one of those referred to in paragraph (a), and

(c) by a Canadian Forces qualified flying instructor while providing dual flight instruction to persons undergoing initial flight training in the Canadian Forces; (*expérience d'instructeur de vol*)

“flight watch” means maintaining current information on the progress of a flight and monitoring all factors and conditions that might affect the flight; (*surveillance de vol*)
(amended 2006/12/14)

“foreign licence validation certificate” - means a certificate issued by the Minister pursuant to subsection 401.07(1); (*certificat de validation de licence étrangère*)

“glider” - includes a powered glider; (*planeur*)

“ground school instruction” - means classroom-type instruction generally given to one or more persons and covering an organized program of lectures, homework or self-paced study that adheres to an approved training program; (*instruction théorique au sol*)
(amended 2001/03/01)

“high-performance aeroplane”, with respect to a rating, means

(a) an aeroplane that is specified in the minimum flight crew document as requiring only one pilot and that has a maximum speed (V_{ne}) of 250 KIAS or greater or a stall speed (V_{so}) of 80 KIAS or greater, or

(b) an amateur-built aeroplane that has a wing loading greater than that specified in section 549.103 of the *Airworthiness Manual*; (*avion à hautes performances*)
(amended 2001/03/01)

“instrument time” means

- (a) instrument ground time,
- (b) actual instrument flight time, or
- (c) simulated instrument flight time; (*temps aux instruments*)
(amended 2001/03/01)

“integrated course” means a course of pilot training developed using the principles of instructional systems design, in which all instructional stages are completed as one continuous course and the flight training elements are interrelated and sequenced to provide for the efficient achievement of the learning objectives; (*cours intégré*)
(amended 2006/12/14)

“invigilator” - means a person who is designated by the Minister to supervise a written examination; (*surveillant*)

“main base” - means a location at which a flight training unit has personnel, aircraft and facilities for the operation of a flight training service and that is established as the principal place of business of the flight training unit; (*base principale*)

“minimum flight crew document” - means a document, issued by the Minister, the Government of the United States or an aircraft manufacturer, that relates to an aircraft and that specifies the number of pilots required to operate the aircraft, but does not include an air operator certificate; (*document relatif à l'équipage de conduite minimal*)

“operational control” means the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight; (*contrôle d'exploitation*)
(amended 2006/12/14)

“operations specifications” - in respect of a flight training unit, means the operations specifications set out in a flight training unit operator certificate, and includes any amendment to the conditions of operation; (*spécifications d'exploitation*)

“pilot's self-dispatch” means a flight where the pilot-in-command is solely responsible for flight watch; (*régulation du vol par le pilote*)
(amended 2006/12/14)

“pre-flight briefing” - means a one-to-one practical briefing that is conducted just prior to a training flight for the purpose of ensuring that the trainee understands exactly what will take place during the flight; (*exposé avant vol*)

“preparatory ground instruction” - means classroom-type instruction, generally on a one-to-one basis but not excluding group instruction, that is based on lesson plans contained in or developed from the applicable flight instructor guide; (*instruction au sol avant vol*)

“satellite base” - means a location at which a flight training unit has personnel, aircraft and facilities for the operation of a flight training service on a temporary basis; (*base satellite*)

“solo flight time” means, with respect to the flight time necessary to acquire a permit, licence or rating,
(amended 2003/06/01)

(a) in the case of a pilot, the flight time during which the pilot is the sole flight crew member, and

(b) in the case of a student pilot permit holder, the flight time during which the holder is the sole occupant of an aircraft while under the direction and supervision of the holder of an instructor rating for the appropriate category of aircraft; (*temps de vol en solo*)

“sub-base” means a location at which a flight training unit positions aircraft and personnel and from which operational control is exercised in accordance with the flight training operations manual and operational control system; (*base secondaire*)
(amended 2006/12/14)

“training flight” - means a dual instruction flight or a solo practice flight that is conducted under the direction and supervision of a flight instructor; (*vol d’entraînement*)

“ultra-light aeroplane” - includes a powered parachute and a powered para-glider. (*avion ultra-léger*)

(2) Any reference in this Part to a permit, licence, rating or foreign licence validation certificate is a reference to a valid Canadian permit, licence, rating or foreign licence validation certificate.

(3) Any reference in this Part to “military” is a reference to the Canadian Forces.
(amended 2001/03/01)

DIVISION II - EXAMINATIONS

Examination Rules

400.02(1) Except as authorized by an invigilator, no person shall, or shall attempt to, in respect of a written examination,

(a) copy or remove from any place all or any portion of the text of the examination;

(b) give to or accept from any person a copy of all or any portion of the text of the examination;

(c) give help to or accept help from any person during the examination;

(d) complete all or any portion of the examination on behalf of any other person; or

(e) use any aid or written material during the examination.

(2) A person who commits an act prohibited under subsection (1) fails the examination and may not take any other examination for a period of one year.

(amended 2005/12/01)

(3) A person who uses a hand-held calculator during an examination shall use a hand-held calculator whose memory is cleared before and after the examination in the presence of the invigilator.

(4) A person who uses a hand-held electronic computer during an examination shall use a hand-held electronic computer

(a) that has been specifically designed for flight operations;

(b) that has been approved by the Minister for examination purposes; and

(c) whose memory is cleared before and after the examination in the presence of the invigilator.

Time Limits

400.03(1) Subject to subsection (3), written examinations, including all sections of a sectionalized examination, that are required for the issuance of a permit or licence or for the endorsement of a permit or licence with a rating shall be completed during the 24-month period preceding the date of the application for the permit, licence or rating.

(amended 2012/02/19)

(2) Subsection (1) does not apply in respect of examinations that are required for the issuance of

(amended 2001/03/01)

(a) a student pilot permit; or

(amended 2001/03/01)

(b) an airline transport pilot licence if examinations were previously written

(amended 2001/03/01)

(i) for the endorsement of a type rating, a mark of 70 per cent or higher was obtained on the examination and the type rating was issued;

(amended 2001/03/01)

(ii) for the issuance of the former senior commercial pilot licence, a mark of 70 per cent or higher was obtained on the examination and the senior commercial pilot licence was issued; or

(amended 2001/03/01)

(iii) for the issuance of an airline transport pilot licence — aeroplane, an airline transport pilot licence — aeroplane integrated course was successfully completed during the 5-year period preceding the date of the application for the licence and a course completion certificate was issued.

(amended 2006/12/14)

(3) The regulatory requirements examination referred to in subsection 566.03(5) of Standard 566 - *Aircraft Maintenance Engineer Licensing and Training* that is required for the issuance of an aircraft maintenance engineer (AME) licence shall be completed during the 12-month period immediately following the date on which the application for the licence is accepted by the Minister.

(amended 2003/06/01)

Rewriting of Examinations

400.04(1) Subject to subsections (2) and (6), a person who fails an examination or a section of a sectionalized examination required for the issuance of a flight crew permit, licence, rating or foreign licence validation certificate is ineligible to rewrite the examination or the failed section for a period of

(amended 2001/03/01)

(a) in the case of a first failure, 14 days;

(b) in the case of a second failure, 30 days; and

(c) in the case of a third or subsequent failure, 30 days plus an additional 30 days for each failure in excess of two failures, up to a maximum of 180 days.

(2) A person who fails the Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Aviation Regulations (PSTAR) examination is eligible to rewrite the examination at any time after the person has received notice of the failure and has reviewed their weak knowledge areas.

(amended 2001/03/01)

(3) A person who fails an examination required for the issuance of an aircraft maintenance engineer (AME) licence or rating is eligible to rewrite the examination in accordance with the criteria specified in Chapter 566 of the *Airworthiness Manual*.

(4) A person who passes a sectionalized examination but fails one or more Sections of that examination shall rewrite the failed section or sections in one sitting.

(5) Where a person requests to rewrite an examination, the Minister shall inform the person in writing of the date on which the person may rewrite the examination and whether the person is required to provide evidence of further study or instruction before rewriting the examination.

(6) If a person submits a request to the Minister to shorten the period between examination attempts, the Minister shall grant the request on receipt of confirmation that the person has reviewed their weak knowledge areas.
(amended 2001/03/01)

DIVISION III - FLIGHT TRAINING SERVICE

Authorization to Operate Flight Training Service under NAFTA

400.05(1) A person who is a citizen, permanent resident or corporation of the United States of America or Mexico and who is eligible to operate a flight training service in Canada in accordance with Chapter 12 and Annex I - *Canada of the North American Free Trade Agreement* shall, prior to operating the service, obtain from the Minister an authorization to operate the service. The request for the authorization shall be in the form and shall contain the information specified in the *Personnel Licensing and Training Standards Respecting Flight Training Units*.

(2) Subject to Section 6.71 of the Act, the Minister shall, on receipt of a request referred to in subsection (1) and where the requirements of the *Personnel Licensing and Training Standards Respecting Flight Training Units* are met, issue an authorization containing the conditions under which the flight training service may be operated.

(3) An authorization referred to in subsection (1) is required in addition to a flight training unit operator certificate for those persons who are required to hold a flight training unit operator certificate pursuant to Subpart 6.

DIVISION IV - RESERVED

(amended 2008/05/01)

Reserved

(amended 2008/05/01)

400.06

DIVISION V - CHANGE OF INFORMATION

Change of Address

400.07 The holder of a permit or licence shall notify the Department of Transport of any change of permanent address within seven days after the change.
(amended 2001/03/01)

Reserved
(amended 1998/12/01)

400.08



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CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

401

SUBPART 1 - FLIGHT CREW PERMITS, LICENCES AND RATINGS

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
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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 1 - FLIGHT CREW PERMITS, LICENCES AND RATINGS

DIVISION I - GENERAL

Interpretation

401.01 Any reference in this Subpart to the personnel licensing standards is a reference to the *Personnel Licensing and Training Standards Respecting Flight Crew Permits, Licences and Ratings*.

Application

401.02 This Subpart applies to

(a) persons who hold or apply for the issuance or renewal of any of the flight crew permits, licences and ratings referred to in this Subpart, namely,

- (i) student pilot permits,
- (ii) pilot permits,
- (iii) pilot licences,
- (iv) private pilot licences,
- (v) commercial pilot licences,
- (vi) airline transport pilot licences,
- (vii) flight engineer licences,
- (viii) aeroplane class ratings,
- (ix) aircraft type ratings,
- (x) night ratings,
- (xi) VFR OTT ratings,
- (xii) instrument ratings,
- (xiii) second officer ratings,
- (xiv) flight instructor ratings; and
- (xv) passenger-carrying ratings; and
(amended 2005/12/01)

(b) persons who apply for the validation of a foreign flight crew licence pursuant to subsection 401.07(1).

***Requirement to Hold a Flight Crew Permit, Licence or
Rating or a Foreign Licence Validation Certificate***

(amended 2003/06/01)

401.03(1) Subject to subsection (2), no person shall act as a flight crew member or exercise the privileges of a flight crew permit, licence or rating unless
(amended 2010/02/02)

(a) the person holds the appropriate permit, licence or rating;
(amended 2010/02/02)

(b) the permit, licence or rating is valid;
(amended 2010/02/02)

(c) the person holds the appropriate medical certificate; and
(amended 2010/02/02)

(d) the person can produce the permit, licence or rating, and the certificate, when exercising those privileges.
(amended 2010/02/02)

(1.1) No person shall exercise the privileges of a foreign licence validation certificate unless the person
(amended 2010/02/02)

(a) holds the appropriate foreign licence validation certificate;
(amended 2010/02/02)

(b) has signed the certificate; and
(amended 2010/02/02)

(c) can produce the certificate when exercising those privileges.
(amended 2010/02/02)

(2) A person who holds a military flight crew permit, licence or rating or a flight crew permit, licence or rating issued by a contracting state other than Canada may act as a flight crew member or exercise the privileges of a flight crew permit, licence or rating for the sole purpose of the person's flight test where

(a) the test is conducted in accordance with section 401.15; and

(b) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board the aircraft.

***Flight Crew Members of Aircraft Registered in
Contracting States Other Than Canada***

401.04 No person shall act as a flight crew member or exercise the privileges of a flight crew licence in Canada in an aircraft registered in a contracting state other than Canada, unless the person holds, and can produce while so acting or while exercising such privileges,

(a) a flight crew permit or licence issued under this Subpart; or
(amended 2003/06/01)

(b) a flight crew licence, or a document equivalent to a foreign licence validation certificate, that is issued under the laws of the contracting state.

Recency Requirements

401.05(1) Notwithstanding any other provision of this Subpart, no holder of a flight crew permit, licence or rating, other than the holder of a flight engineer licence, shall exercise the privileges of the permit, licence or rating unless

(a) the holder has acted as pilot-in-command or co-pilot of an aircraft within the five years preceding the flight; or

(b) within the 12 months preceding the flight

(i) the holder has completed a flight review, in accordance with the personnel licensing standards, conducted by the holder of a flight instructor rating for the same category of aircraft,

(ii) the flight instructor who conducted the flight review has certified in the holder's personal log that the holder meets the skill requirements for the issuance of the permit or licence set out in the personnel licensing standards, and

(iii) the holder has successfully completed the appropriate examination specified in the personnel licensing standards.

(2) Notwithstanding any other provision of this Subpart, no holder of a flight crew permit or licence, other than the holder of a flight engineer licence, shall exercise the privileges of the permit or licence in an aircraft unless the holder

(a) has successfully completed a recurrent training program in accordance with the personnel licensing standards within the 24 months preceding the flight; and

(b) where a passenger other than a flight test examiner designated by the Minister is carried on board the aircraft, has completed, within the six months preceding the flight,

(i) in the case of an aircraft other than a glider or a balloon, in the same category and class of aircraft as the aircraft, or in a Level B, C or D simulator of the same category and class as the aircraft, at least

(A) five night or day take-offs and five night or day landings, if the flight is conducted wholly by day, or

(B) five night take-offs and five night landings, if the flight is conducted wholly or partly by night,

(ii) in the case of a glider, at least

(A) five take-offs and five landings in a glider, or

(B) two take-offs and two landings in a glider with the holder of a flight instructor rating - glider and obtained a certification of competence to carry passengers on board a glider from that holder in accordance with the personnel licensing standards, and

(iii) in the case of a balloon, at least

(amended 2001/03/01)

(A) five landings in a balloon by day and five take-offs in a balloon by day or night, if the flight is conducted by day, or
(amended 2001/03/01)

(B) five landings in a balloon by day and five take-offs in a balloon by night, if the flight is conducted partly by night.
(amended 2001/03/01)

(3) No holder of an instrument rating shall exercise the privileges referred to in Section 401.47 unless the holder has

(a) within the 12 months preceding the flight, successfully completed an instrument rating flight test in an aircraft or in a Level B, C or D simulator of the same group as the aircraft;

(b) within the six months preceding the flight, acquired six hours of instrument time and completed six instrument approaches to the minima specified in the *Canada Air Pilot* in an aircraft, in actual or simulated instrument meteorological conditions, or in a Level B, C or D simulator of the same category as the aircraft or in a flight training device under the supervision of a person who holds the qualifications referred to in subsection 425.21(9) of the *Personnel Licensing and Training Standards respecting Flight Training*;
(amended 2012/02/19)

(c) within the six months preceding the flight, acquired six hours of instrument time and completed six instrument approaches to the minima specified in the *Canada Air Pilot* in an aircraft, in actual or simulated instrument meteorological conditions, while acting as a flight instructor conducting training in respect of the endorsement of a flight crew licence or permit with an instrument rating; or
(amended 2001/03/01)

(d) successfully completed, for an aircraft, a pilot proficiency check whose validity period has not expired and which included the instrument procedures portion of
(amended 2001/03/01)

(i) Schedule I to Standard 624 - *Private Operator Passenger Transportation* of the *General Operating and Flight Rules Standards*, in respect of aircraft operated under Subpart 4 of Part VI, and
(amended 2001/03/01)

(ii) the following schedules to the *Commercial Air Services Standards* in respect of the corresponding aircraft operated under Subparts 2 to 5 of Part VII:
(amended 2001/03/01)

(A) Schedule I to Standard 722 - *Aerial Work* in respect of aeroplanes operated under Subpart 2,
(amended 2001/03/01)

(B) Schedule II to Standard 722 - *Aerial Work* in respect of helicopters operated under Subpart 2,
(amended 2001/03/01)

(C) Schedule I to section 723.88 of Standard 723 - *Air Taxi - Aeroplanes* in respect of aeroplanes operated under Subpart 3,
(amended 2001/03/01)

(D) the schedule to section 723.88 of Standard 723 - *Air Taxi - Helicopters* in respect of helicopters operated under Subpart 3,
(amended 2001/03/01)

(E) Schedule I or II to section 724.108 of Standard 724 - *Commuter Operations - Aeroplanes* in respect of aeroplanes operated under Subpart 4,
(amended 2001/03/01)

(F) the Helicopter Schedule to section 724.108 of Standard 724 - *Commuter Operations - Helicopters* in respect of helicopters operated under Subpart 4, or
(amended 2001/03/01)

(G) Schedule I, II or III to section 725.106 of Standard 725 - *Airline Operations - Aeroplanes* in respect of aeroplanes operated under Subpart 5.
(amended 2001/03/01)

(4) No holder of a flight engineer licence shall exercise the privileges set out in section 401.37 unless

(a) the holder has acted as flight engineer on board an aircraft within the five years preceding the flight or has met the written examination requirements for the licence within the 12 months preceding the flight; and

(b) where a passenger or a trainee is carried on board the aircraft, the holder has, within the six months preceding the flight, acted as flight engineer

(i) in an aircraft of the same type, or

(ii) in a synthetic flight trainer for an aircraft of the same type.

(5) No holder of a second officer rating shall exercise the privileges set out in section 401.53 unless

(a) the holder has acted as a second officer on board an aircraft within the five years preceding the flight; and

(b) where a passenger or a trainee is carried on board the aircraft, the holder has, within the six months preceding the flight, acted as a second officer in

(i) an aircraft of the same type, or

(ii) a synthetic flight trainer for an aircraft of the same type.

(6) No holder of a flight instructor rating - ultra-light aeroplane shall exercise the privileges set out in section 401.88 unless

(a) the holder has

(i) acted as pilot-in-command or co-pilot of an aircraft within the five years preceding the flight, or

(ii) met the written examination requirements for the rating within the 12 months preceding the flight;

(b) the holder has successfully completed a recurrent training program in accordance with the personnel licensing standards within the 24 months preceding the flight; and

(c) the holder has, where a student is carried on board the aeroplane, completed at least five take-offs and five landings in an ultra-light aeroplane of the same control configuration within the six months preceding the flight.

***Issuance and Endorsement of Flight Crew Permits,
Licences and Ratings***

401.06 (1) Subject to Section 6.71 of the Act, the Minister shall, on receipt of an application submitted in the form and manner specified in the personnel licensing standards, issue a flight crew permit or licence to the applicant or endorse the applicant's flight crew permit or licence with a rating if the applicant provides documentation to the Minister that establishes

(amended 2003/06/01)

(a) the applicant's citizenship;

(b) that the applicant meets the applicable requirements set out in the personnel licensing standards in respect of

- (i) minimum age,
- (ii) medical fitness,
- (iii) knowledge,
- (iv) experience, and
- (v) skill; and

(c) that the applicant has successfully completed, within the applicable period specified in the personnel licensing standards preceding the date of application for the permit, licence or rating, a flight test in accordance with the personnel licensing standards.
(amended 2006/12/14)

(1.1) An application shall also include
(amended 2008/04/17)

(a) in the case of a licence or a permit, one photograph of the applicant that meets the requirements of subsection 421.06(3) of the personnel licensing standards; and
(amended 2008/04/17)

(b) in the case a licence, documentation establishing that the applicant demonstrated, by means of an evaluation, their ability to speak and understand English or French, or both, at the operational or expert level in accordance with the language proficiency scale set out in the table to subsection 421.06(4) of the personnel licensing standards.
(amended 2008/04/17)

(2) The certification of additional privileges on a permit or licence expires at the end of the period specified on the licence or permit or on receipt of a new permit or licence granting those privileges, whichever is earlier.
(amended 2003/06/01)

(3) The Minister shall extend the validity period of an instrument rating or a flight instructor rating for a period of not more than 90 days beginning on the day on which the rating would otherwise expire, if
(amended 2008/05/01)

(a) the application for extension of the rating is made while the rating is still valid; and
(amended 2008/05/01)

(b) the applicant demonstrates that there has been no reasonable opportunity to renew the rating within the 90 days before the day on which the rating would otherwise expire.
(amended 2008/05/01)

Validation of Foreign Licences

401.07(1) Subject to section 6.71 of the Act, if the holder of a foreign flight crew licence issued by a contracting state other than Canada meets the applicable requirements set out in the personnel licensing standards and does not reside in Canada, the Minister shall, on receipt of an application submitted in the form and manner set out in those standards, issue a foreign licence validation certificate to the holder of the licence.

(amended 2008/05/01)

(2) The Minister shall, in accordance with the personnel licensing standards, specify in a foreign licence validation certificate the privileges that may be exercised by the holder of the certificate.

Personal Logs

401.08(1) Every applicant for, and every holder of, a flight crew permit, licence or rating shall maintain a personal log in accordance with subsection (2) and with the personnel licensing standards for the documentation of

(a) experience acquired in respect of the issuance of the flight crew permit, licence or rating; and

(amended 2001/03/01)

(b) recency.

(2) A personal log that is maintained for the purposes referred to in paragraphs (1)(a) and (b) shall contain the holder's name and the following information in respect of each flight:

(a) the date of the flight;

(b) the type of aircraft and its registration mark;

(c) the flight crew position in which the holder acted;

(d) the flight conditions with respect to day, night, VFR and IFR;

(e) in the case of a flight in an aeroplane or helicopter, the place of departure and the place of arrival;

(f) in the case of a flight in an aeroplane, all of the intermediate take-offs and landings;

(g) the flight time;

(h) in the case of a flight in a glider, the method of launch used for the flight; and

(i) in the case of a flight in a balloon, the method of inflation used for the flight.

(3) No person shall make an entry in a personal log unless the person

(a) is the holder of the log; or

(b) has been authorized to make the entry by the holder of the log.

***Credits towards Requirements for a Flight Crew
Permit, Licence or Rating***

401.09 The Minister shall, in accordance with the personnel licensing standards, credit the flight time acquired by a person in acting as a flight crew member towards the issuance of the person's flight crew permit or licence or the endorsement of the person's flight crew licence or permit with a rating.

401.10 The Minister shall, in accordance with the personnel licensing standards, credit the flight time acquired by a co-pilot towards the issuance of a higher class of pilot licence.
(amended 1998/12/01)

***Airline Transport Licence - Training Program and
Recording of Time***
(amended 1998/12/01)

401.11(1) No person shall record in a personal log the flight time acquired by a co-pilot while acting as pilot-in-command under supervision, unless the flight time
(amended 1998/12/01)

(a) was acquired in accordance with an airline transport pilot licence training program approved by the Minister pursuant to subsection (2) and carried out in accordance with the personnel licensing standards; and

(b) is recorded in the personal log in accordance with the personnel licensing standards.

(2) The Minister shall approve a training program referred to in paragraph (1)(a) if the applicable requirements set out in the personnel licensing standards are met.
(amended 1998/12/01)

Validity of Flight Crew Permits and Licences
(amended 2010/02/02)

401.12 (1) A flight crew permit or licence that is issued in the form of a booklet label is not valid unless
(amended 2010/02/02)

(a) the label is affixed in an aviation document booklet;
(amended 2010/02/02)

(b) the booklet number displayed on the label matches the number of the booklet; and
(amended 2010/02/02)

(c) the booklet is signed by the holder.
(amended 2010/02/02)

(2) The validity period of a flight crew permit or licence that is issued in the form of a booklet label starts on the day on which it is issued and ends on the expiry date of the aviation document booklet in which it is affixed.

(amended 2010/02/02)

(3) The expiry date of an aviation document booklet that has a flight crew permit affixed in it but does not have a flight crew licence affixed in it is the first day of the sixty-first month following the day on which the booklet was issued.

(amended 2010/02/02)

(4) The expiry date of an aviation document booklet that has a flight crew licence affixed in it is

(amended 2010/02/02)

(a) the first day of the sixty-first month following the day on which the booklet was issued, if the application for the licence included documentation establishing that the holder demonstrated an expert level ability during their language proficiency evaluation; or

(amended 2010/02/02)

(b) the first day of the sixty-first month following the day on which the holder's language proficiency evaluation was conducted, if the application for the licence included documentation establishing that the holder demonstrated an operational level ability during the evaluation.

(amended 2010/02/02)

(5) A flight crew permit or licence that was not issued in the form of a booklet label and is listed in column 1 of the table this subsection is valid until the day set out in column 2.

(amended 2010/02/02)

TABLE

(amended 2010/02/02)

Item	Column 1 Flight Crew Permit or Licence	Column 2 Expiry Date
1.	Airline transport pilot licence - aeroplane	June 30, 2010
2.	Airline transport pilot licence - helicopter	June 30, 2010
3.	Commercial pilot licence - aeroplane	June 30, 2010
4.	Commercial pilot licence - helicopter	June 30, 2010
5.	Private pilot licence - aeroplane	June 30, 2010
6.	Private pilot licence - helicopter	June 30, 2010
7.	Flight engineer licence	June 30, 2010
8.	Pilot licence - glider	December 31, 2010
9.	Pilot licence - balloon	December 31, 2010
10.	Pilot permit - recreational	December 31, 2010
11.	Pilot permit - gyroplane	December 31, 2010
12.	Pilot permit - ultra-light aeroplane	December 31, 2010

DIVISION II - TESTING***Examination Prerequisites***

401.13(1) Prior to taking a written examination, an applicant for a flight crew permit, licence or rating shall meet the prerequisites for the examination set out in the personnel licensing standards with respect to
(amended 2001/03/01)

(a) medical fitness;

(b) identification;

(c) a recommendation from the flight instructor who is responsible for the training of the applicant; and

(d) experience.

(2) The applicant for a flight crew permit, licence or rating must be sufficiently competent in one of the official languages to be able to read the examination questions and to write the answers without assistance.

(amended 2001/03/01)

Flight Test Prerequisites

401.14 Prior to taking a flight test, an applicant for a flight crew permit, licence or rating shall meet the prerequisites for the test set out in the personnel licensing standards with respect to

- (a) medical fitness;
 - (b) identification;
 - (c) a recommendation from the flight instructor who is responsible for the training of the applicant;
 - (d) experience; and
 - (e) for applicants for a commercial pilot licence — aeroplane or helicopter, knowledge.
- (amended 2006/12/14)

Conduct of a Flight Test

401.15 No person shall conduct a flight test required for the issuance or renewal of a flight crew permit or licence or for the endorsement of a flight crew permit or licence with a rating unless

(amended 2012/02/19)

- (a) the person

(amended 2012/02/19)

- (i) is designated by the Minister to conduct the flight test; and
- (amended 2012/02/19)

- (ii) meets the requirements of section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*; and
- (amended 2012/02/19)

- (b) the flight test is conducted in accordance with

(amended 2012/02/19)

- (i) Subpart 8, in the case of an aeroplane or helicopter, or
- (amended 2012/02/19)

- (ii) the personnel licensing standards, in any other case.
- (amended 2012/02/19)

Failure of a Flight Test

401.16 Where an applicant has failed a flight test, the applicant shall complete the remedial requirements specified in the personnel licensing standards prior to being retested.

Failure of a Flight Test for a Rating Renewal

401.17(1) Where, during a flight test, the holder of a rating fails to meet the requirements specified in the personnel licensing standards for the lowest class of that rating, the Minister shall suspend the rating.

(2) Where, during a flight test for a flight instructor rating, the holder of a rating fails to meet the requirements specified in the personnel licensing standards for renewal of the rating but meets the requirements for a lower class of that rating the Minister shall endorse the holder's licence with the lower class of that rating.

Examiner's Endorsement of Personal Log - Gliders and Balloons

401.18(1) Where the applicant for a pilot licence — glider successfully completes the flight test required for the licence, the flight test examiner shall so endorse the applicant's personal log, recording therein the method of launch that was used for the flight test and any other information specified in the personnel licensing standards.

(2) Where the holder of a pilot licence — glider demonstrates, in accordance with the personnel licensing standards, additional methods of launch to an instructor who holds a flight instructor rating - glider, the instructor shall so endorse the holder's personal log, recording therein the additional methods of launch used.

(3) Where an applicant for a pilot licence — balloon successfully completes the flight test required for the licence, the flight test examiner shall so endorse the applicant's personal log, recording therein the method of inflation that was used for the flight test and any other information specified in the personnel licensing standards.

(4) Where the holder of a pilot licence — balloon demonstrates, in accordance with the personnel licensing standards, additional methods of inflation to an instructor who holds a flight instructor rating — balloon, the instructor shall so endorse the holder's personal log, recording therein the additional methods of inflation used.

DIVISION III - STUDENT PILOT PERMITS

Privileges

401.19 The holder of a student pilot permit may, for the sole purpose of the holder's flight training or flight test, act as pilot-in-command of any aircraft of the category to which the permit relates, where

- (a) the flight is conducted in Canada under day VFR;
- (b) in the case of flight training,
 - (i) it is conducted under the direction and supervision of the holder of a flight instructor rating for that category of aircraft, and
 - (ii) no passenger is carried on board; and
- (c) in the case of a flight test,
 - (i) it is conducted in accordance with section 401.15, and
 - (ii) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

DIVISION IV - PILOT PERMITS

Gyroplanes - Privileges

401.20 The holder of a pilot permit - gyroplane may, under VFR, act as

- (a) pilot-in-command of a gyroplane of a type for which the permit is endorsed with a rating; and
- (b) pilot-in-command or co-pilot of an aircraft for the sole purpose of the holder's flight training or flight test where
 - (i) in the case of flight training,
 - (A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, and (amended 2012/02/19)
 - (B) no passenger is carried on board, and
 - (ii) in the case of a flight test,
 - (A) it is conducted in accordance with Section 401.15, and
 - (B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Ultra-light Aeroplanes - Privileges

401.21 The holder of a pilot permit - ultra-light aeroplane may, under day VFR,

(a) act as pilot-in-command of an ultra-light aeroplane with no other person on board;
(amended 2005/12/01)

(b) act as pilot-in-command of an ultra-light aeroplane with one other person on board if
(amended 2005/12/01)

(i) the holder's permit is endorsed with a passenger-carrying rating,

(ii) the ultra-light aeroplane has no restrictions against carrying another person, and

(iii) the holder has completed training, including dual instruction and solo flight, on the class of ultra-light aeroplane being operated;

(c) act as pilot-in-command of an ultra-light aeroplane with one other person on board if the other person is a holder of a pilot licence or permit, other than a student pilot permit, that allows them to act as pilot-in-command of an ultra-light aeroplane; or
(amended 2005/12/01)

(d) act as pilot-in-command of an aircraft for the sole purpose of the holder's flight training or flight test if
(amended 2005/12/01)

(i) in the case of flight training,

(A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards* respecting Flight Training, and
(amended 2012/02/19)

(B) no other person is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Recreational - Aeroplanes - Privileges

401.22 The holder of a pilot permit — recreational — aeroplane may, under day VFR, act as

(a) pilot-in-command of an aeroplane of a class and type in respect of which the permit is endorsed with a rating where

(i) the aeroplane is a single-engined aeroplane that is not a high-performance aeroplane,
(amended 2001/03/01)

- (ii) the aeroplane is designed, or is authorized by a type certificate, to carry a maximum of four persons, and
- (iii) no more than one passenger is carried on board;
- (b) pilot-in-command of an ultra-light aeroplane; and
- (c) pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where
 - (i) in the case of flight training,
 - (A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, and (amended 2012/02/19)
 - (B) no passenger is carried on board, and
 - (ii) in the case of a flight test,
 - (A) it is conducted in accordance with Section 401.15, and
 - (B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Recreational - Helicopters - Privileges

401.23 The holder of a pilot permit - recreational - helicopter may, under day VFR, act as

- (a) pilot-in-command of a helicopter of a type specified in the personnel licensing standards in respect of which the permit is endorsed with a rating where
 - (i) the helicopter is a single-engined helicopter,
 - (ii) no more than one passenger is carried on board; and
 - (iii) no external loads are carried; and
- (b) pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where
 - (i) in the case of flight training,
 - (A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, and (amended 2012/02/19)
 - (B) no passenger is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with Section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

DIVISION V - PILOT LICENCE

Gliders - Privileges

401.24 The holder of a pilot licence - glider may, under day VFR, act as

(a) pilot-in-command of a glider in which no passenger is carried on board;

(b) pilot-in-command of a glider in which passengers are carried on board where

(i) the glider is launched by a method of launch endorsed by the holder of a flight instructor rating - glider in the holder's personal log pursuant to subsection 401.18(1) or (2), and

(ii) the method of launch has been used by the holder for not less than three previous solo flights; and

(c) pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where

(i) in the case of flight training,

(A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, and
(amended 2012/02/19)

(B) no passenger is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with Section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Balloons - Privileges

401.25 The holder of a pilot licence - balloon may, under VFR,

(a) act as pilot-in-command or co-pilot of a balloon that is inflated by a method of inflation endorsed by the holder of a flight instructor rating - balloon in the holder's personal log pursuant to subsection 401.18(3) or (4) and that is of a type for which the licence is endorsed with a rating;

(b) act as pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where

(i) in the case of flight training,

(A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards* respecting *Flight Training*, and
(amended 2012/02/19)

(B) no passenger is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with Section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board; and

(c) conduct a take-off in a balloon within a built-up area of a city or town where the holder complies with section 602.13 and the applicable requirements set out in the personnel licensing standards.

DIVISION VI - PRIVATE PILOT LICENCE

Aeroplanes - Privileges

401.26 The holder of a private pilot licence - aeroplane may act as

(a) pilot-in-command or co-pilot of an aeroplane of a class and type in respect of which the licence is endorsed with ratings;

(b) pilot-in-command of an ultra-light aeroplane; and

(c) pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where

(i) in the case of flight training,

(A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards* respecting *Flight Training*, and
(amended 2012/02/19)

(B) no passenger is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with Section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Helicopters - Privileges

401.27 The holder of a private pilot licence — helicopter may act as

(a) pilot-in-command or co-pilot of a helicopter of a type in respect of which the licence is endorsed with ratings; and

(b) pilot-in-command or co-pilot of any aircraft for the sole purpose of the holder's flight training or flight test where

(i) in the case of flight training,

(A) it is conducted under the direction and supervision of a flight instructor qualified in accordance with section 425.21 of the *Personnel Licensing and Training Standards* respecting *Flight Training*, and
(amended 2012/02/19)

(B) no passenger is carried on board, and

(ii) in the case of a flight test,

(A) it is conducted in accordance with section 401.15, and

(B) no passenger other than the person referred to in paragraph 401.15(1)(a) is carried on board.

Aeroplanes and Helicopters - Reimbursement of Costs Incurred in respect of a Flight

401.28(1) The holder of a private pilot licence shall not act as the pilot-in-command of an aeroplane or helicopter for hire or reward unless the conditions set out in subsection (2), (3), (4) or (5), as applicable, are met.
(amended 2005/12/01)

(2) The holder of a private pilot licence may receive reimbursement for costs incurred in respect of a flight if the holder
(amended 2005/12/01)

(a) is the owner or operator of the aircraft;
(amended 2005/12/01)

(b) conducts the flight for purposes other than hire or reward;
(amended 2005/12/01)

(c) carries passengers only incidentally to the purposes of the flight; and
(amended 2005/12/01)

(d) receives a reimbursement that
(amended 2005/12/01)

(i) is provided only by the passengers referred to in paragraph (c), and

(ii) is for the purpose of sharing costs for fuel, oil and fees charged against the aircraft in respect of the flight, as applicable.

(3) The holder of a private pilot licence may receive reimbursement from the holder's employer for costs incurred in respect of a flight if the holder
(amended 2005/12/01)

(a) is employed on a full-time basis by the employer for purposes other than flying;
(amended 2005/12/01)

(b) conducts the flight on the employer's business and the flight is incidental to the execution of the holder's duties; and
(amended 2005/12/01)

(c) receives a reimbursement that
(amended 2005/12/01)

(i) in the case of an aircraft owned by the holder, is paid at a rate based on distance travelled or number of hours flown that does not exceed the total of the holder's direct operating costs and the fees charged against the aircraft in respect of the flight, or
(amended 2005/12/01)

(ii) in the case of a rental aircraft, does not exceed the total of the holder's rental costs, direct operating costs and the fees charged against the aircraft in respect of the flight.
(amended 2005/12/01)

(4) The holder of a private pilot licence may receive reimbursement from a charitable, not-for-profit or public security organization in respect of a flight conducted by the holder as a volunteer for that organization if the reimbursement
(amended 2005/12/01)

(a) in the case of an aircraft owned by the holder, is paid at a rate based on distance travelled or number of hours flown and does not exceed the total of the holder's direct operating costs and the fees charged against the aircraft in respect of the flight; or
(amended 2005/12/01)

(b) in the case of a rental aircraft, does not exceed the total of the holder's rental costs, direct operating costs and the fees charged against the aircraft in respect of the flight.
(amended 2005/12/01)

(5) The holder of a private pilot licence who is a farmer, as defined in section 700.01, may conduct aerial work involving the dispersal of products for agricultural purposes for hire or reward if the holder

(amended 2005/12/01)

- (a) does not hold an air operator certificate;
- (b) owns the aircraft that is used to disperse the products;
- (c) has at least 150 hours of flight time as pilot-in-command, including at least 25 hours of flight time in the type of aircraft being used;
- (d) ensures that no more than the minimum number of crew members needed to disperse the products is on board the aircraft;
- (e) ensures that the dispersal takes place within 25 miles of the centre of the holder's farm; and
- (f) ensures that no dispersal is conducted within a control zone without the authority of the appropriate air traffic control unit.

401.29 Reserved

DIVISION VII - COMMERCIAL PILOT LICENCE

Aeroplanes — Privileges and Requirements

(amended 2006/12/14)

401.30(1) Subject to subsection (3), the holder of a commercial pilot licence — aeroplane may, by day or night,

(amended 2005/12/01)

- (a) exercise the privileges of a private pilot licence — aeroplane;
- (b) exercise the privileges of a VFR OTT rating;
(amended 2001/03/01)
- (c) while engaged in providing a commercial air service by means of an aeroplane of a class and type in respect of which the licence is endorsed with ratings, act as
 - (i) pilot-in-command of the aeroplane, if the minimum flight crew document for the aeroplane specifies a minimum flight crew of one pilot, or
(amended 2001/03/01)
 - (ii) co-pilot of the aeroplane;
(amended 2001/03/01)

(d) if qualified as a flight instructor in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, conduct flight instruction; and

(amended 2012/02/19)

(e) exercise private pilot licence — aeroplane privileges until the end of the medical validity period specified for the private pilot licence.

(amended 2006/12/14)

(2) Where an applicant meets the requirements specified in the personnel licensing standards in respect of a commercial pilot licence — aeroplane except the night flight time requirements, the Minister shall issue to the applicant a commercial pilot licence — aeroplane endorsed for daylight flying only.

(3) No holder of a commercial pilot licence — aeroplane whose licence is endorsed with a daylight-flying-only restriction shall exercise the privileges set out in paragraphs (1)(a) and (c) by night.

(amended 2003/06/01)

(4) The Minister shall remove the daylight-flying-only restriction if an applicant meets the night flight time requirements of the personnel licensing standards.

(amended 2006/12/14)

Helicopters - Privileges and Requirements

(amended 2006/12/14)

401.31(1) Subject to subsection (3), the holder of a commercial pilot licence — helicopter may, by day or night,

(amended 2005/12/01)

(a) exercise the privileges of a private pilot licence — helicopter;

(amended 2001/03/01)

(b) while engaged in providing a commercial air service by means of a helicopter of a type in respect of which the licence is endorsed with ratings, act as

(amended 2001/03/01)

(i) pilot-in-command of the helicopter, if the minimum flight crew document for the helicopter specifies a minimum flight crew of one pilot, or

(amended 2001/03/01)

(ii) co-pilot of the helicopter;

(amended 2001/03/01)

(c) if qualified as a flight instructor in accordance with section 425.21 of the *Personnel Licensing and Training Standards respecting Flight Training*, conduct flight instruction; and

(amended 2012/02/19)

(d) exercise private pilot licence — helicopter privileges until the end of the medical validity period specified for the private pilot licence.

(amended 2007/12/30)

(2) Where an applicant meets the requirements specified in the personnel licensing standards for a commercial pilot licence — helicopter except the night flight time requirements, the Minister shall issue to the applicant a commercial pilot licence — helicopter endorsed for daylight flying only.

(3) No holder of a commercial pilot licence — helicopter whose licence is endorsed with a daylight-flying-only restriction shall exercise the privileges set out in paragraphs (1)(a) and (b) by night.

(4) The Minister shall remove the daylight-flying-only restriction if an applicant meets the night flight time requirements of the personnel licensing standards.

(amended 2006/12/14)

401.32 and 401.33 Reserved

DIVISION VIII - AIRLINE TRANSPORT PILOT LICENCE

Aeroplanes — Privileges

401.34(1) Subject to subsection (2), the holder of an airline transport pilot licence — aeroplane may exercise the privileges of a private pilot licence - aeroplane and a commercial pilot licence — aeroplane.

(amended 2001/03/01)

(2) The holder of an airline transport pilot licence — aeroplane endorsed with a Group 1 instrument rating may, while engaged in providing a commercial air service by means of an aeroplane of a class and type in respect of which the licence is endorsed with a rating, act as

(amended 2001/03/01)

(a) pilot-in-command of the aeroplane, if the minimum flight crew document for that aeroplane specifies a minimum flight crew of two pilots; or

(amended 2001/03/01)

(b) co-pilot of the aeroplane.

(amended 2001/03/01)

Helicopters — Privileges

401.35(1) The holder of an airline transport pilot licence — helicopter may

(a) exercise the privileges of a private pilot licence — helicopter and a commercial pilot licence — helicopter; and

(b) while engaged in providing a commercial air service by means of a helicopter of a type for which the licence is endorsed with ratings, act as pilot-in-command or co-pilot of the helicopter.

(amended 2005/12/01)

(2) Where an applicant meets the requirements specified in the personnel licensing standards for an airline transport pilot licence — helicopter except the night and instrument flight time requirements, the Minister shall issue to the applicant an airline transport pilot licence - helicopter restricted to aerial work only.

401.36 Reserved

DIVISION IX - FLIGHT ENGINEER LICENCE

Privileges

401.37(1) The holder of a flight engineer licence may

(a) act as flight engineer in an aircraft of a type for which the licence is endorsed with a rating; and

(amended 2005/12/01)

(b) act as flight engineer in any aircraft for the sole purpose of the holder's flight training or competency check if

(i) the flight training is conducted under the supervision of a person qualified to give flight engineer training, or

(amended 2005/12/01)

(ii) the competency check is conducted by a person qualified to conduct the check.

(amended 2005/12/01)

(2) A holder of a flight engineer licence who supervises other holders of flight engineer licences may conduct flight training and competency checks in respect of

(amended 2005/12/01)

(a) the issuance of a flight engineer licence;

(b) the endorsement of a flight engineer licence with an aircraft type rating;

(amended 2005/12/01)

(c) the endorsement of a commercial pilot licence — aeroplane or an airline transport pilot licence — aeroplane with a second officer rating; and
(amended 2005/12/01)

(d) the endorsement of a licence with an aircraft type rating for second officer privileges, if the licence has a second officer rating.
(amended 2005/12/01)

DIVISION X - AEROPLANE CLASS RATINGS

Rating

401.38 The Minister shall endorse the following permits and licences with an aeroplane class rating if the applicant for the rating meets the requirements referred to in section 401.06:

- (a) private pilot licence — aeroplane;
- (b) commercial pilot licence — aeroplane;
- (c) airline transport pilot licence — aeroplane; and
- (d) pilot permit — recreational — aeroplane.

Privileges

401.39 The holder of a permit or licence that has been endorsed with an aeroplane class rating may exercise the privileges of the permit or licence in the class of aeroplane for which the permit or licence is endorsed.
(amended 2002/03/01)

DIVISION XI - AIRCRAFT TYPE RATINGS

Blanket and Individual Type Ratings

401.40 The Minister shall endorse the permits and licences specified in the personnel licensing standards with a blanket aircraft type rating or an individual type rating if the applicant for the rating meets the requirements referred to in section 401.06.

Privileges

401.41 The holder of a permit or licence that has been endorsed with a blanket aircraft type rating or an individual type rating may exercise the privileges of the permit or licence in the blanket aircraft type or individual aircraft type for which the permit or licence is endorsed.
(amended 2002/03/01)

DIVISION XII - NIGHT RATING

Rating

401.42 The Minister shall endorse the following permits and licences with a night rating if the applicant for the rating meets the requirements referred to in Section 401.06:

- (a) private pilot licence — aeroplane;
- (b) private pilot licence — helicopter;
- (c) pilot licence — balloon; and
- (d) pilot permit — gyroplane.

Privileges

401.43 The holder of a permit or licence that has been endorsed with a night rating may exercise the privileges of the permit or licence by night.
(amended 2002/03/01)

DIVISION XIII - VFR OVER-THE-TOP RATING

Rating

401.44 The Minister shall endorse the following licences with a VFR OTT rating if the applicant for the rating meets the requirements referred to in section 401.06:

- (a) private pilot licence — aeroplane;
- (b) private pilot licence — helicopter;
- (c) commercial pilot licence — helicopter; and
- (d) airline transport pilot licence — helicopter.

Privileges

401.45 The holder of a licence that has been endorsed with a VFR OTT rating may exercise the privileges of the licence in VFR OTT flight in accordance with section 602.116.

DIVISION XIV - INSTRUMENT RATING

Rating

401.46(1) The Minister shall endorse the following licences with an instrument rating if the applicant for the rating meets the requirements referred to in section 401.06:

- (a) pilot licence — aeroplane; and
- (b) pilot licence — helicopter.

(2) Where the Minister has endorsed a licence with an instrument rating, the Minister shall endorse the licence with the group of aircraft in respect of which the privileges may be exercised.

Privileges

401.47 The holder of a licence endorsed with an instrument rating may exercise

- (a) the privileges of the licence under IFR in accordance with Part VI, Subpart 2, Division VII in respect of the group of aircraft endorsed on the licence; and
- (b) the privileges accorded by a VFR OTT rating.

Period of Validity

401.48 An instrument rating is valid for the period specified on the licence in accordance with the personnel licensing standards, where the period does not exceed 24 months.

Renewal of Instrument Rating

401.49 The Minister shall renew an instrument rating in accordance with the personal licensing standards if the holder of the rating continues to meet the requirements referred to in Section 401.06 for the endorsement of the rating.

401.50 and 401.51 Reserved

DIVISION XV - SECOND OFFICER RATING

Rating

401.52 The Minister shall endorse the following licences with a second officer rating if the applicant for the rating meets the requirements referred to in section 401.06:

- (a) commercial pilot licence — aeroplane; and
- (b) airline transport pilot licence — aeroplane.

Privileges

401.53(1) The holder of a second officer rating may

- (a) act as second officer in any aeroplane of a type to which the rating applies;
- (b) act as second officer in any aeroplane for the sole purpose of the holder's own flight training or competency check if
(amended 2005/12/01)
 - (i) the flight training is conducted under the supervision of a person qualified to give second officer training, or
(amended 2005/12/01)
 - (ii) the competency check is conducted by a person qualified to conduct the check; and
(amended 2005/12/01)
- (c) act as a flight engineer in an aeroplane of a type to which the rating applies.
(amended 2005/12/01)

(2) A holder of a second officer rating who supervises other holders of second officer ratings may conduct flight training and competency checks in respect of
(amended 2005/12/01)

(a) the endorsement of a commercial pilot licence — aeroplane or an airline transport pilot licence — aeroplane with a second officer rating; and
(amended 2005/12/01)

(b) the endorsement of a licence with an aircraft type rating for second officer privileges, if the holder holds a second officer rating.
(amended 2005/12/01)

401.54 Reserved

**DIVISION XVI — PASSENGER-CARRYING
RATING — ULTRA-LIGHT AEROPLANE**

(amended 2005/12/01)

Rating

(amended 2005/12/01)

401.55 The Minister shall endorse a pilot permit — ultra-light aeroplane with a passenger-carrying rating if the applicant for the rating meets the requirements referred to in section 401.06.

(amended 2012/02/19)

Privileges

(amended 2005/12/01)

401.56 The holder of a pilot permit — ultra-light aeroplane endorsed with a passenger-carrying rating may carry one other person on board an ultra-light aeroplane if it has no restrictions against carrying another person.

401.57 to 401.60 Reserved

(amended 2005/12/01)

**DIVISION XVII - FLIGHT INSTRUCTOR
RATINGS - AEROPLANE AND HELICOPTER**

Rating

401.61(1) The Minister shall endorse the following licences with a Class 1, 2, 3 or 4 flight instructor rating — aeroplane if the applicant for the rating meets the requirements referred to in section 401.06:

(a) commercial pilot licence — aeroplane; and

(b) airline transport pilot licence — aeroplane.

(2) The Minister shall endorse the following licences with a Class 1, 2, 3, or 4 flight instructor rating - helicopter if the applicant for the rating meets the requirements referred to in section 401.06:

(a) commercial pilot licence — helicopter; and

(b) airline transport pilot licence — helicopter.

Class 4 Supervision Requirement

401.62 Subject to paragraph 401.69(e), no holder of a Class 4 flight instructor rating — aeroplane or a Class 4 flight instructor rating — helicopter shall exercise the privileges accorded by that rating unless the holder
(amended 2001/03/01)

(a) is conducting the training in accordance with a flight training unit operator certificate;
and

(amended 2001/03/01)

(b) is under the supervision of a supervising instructor of the flight training unit.

***Class 1 or 2 — Supervision of the Holder of a
Class 4 Flight Instructor Rating - Aeroplane and
Helicopter***

401.63(1) Where the holder of a Class 1 or Class 2 flight instructor rating — aeroplane supervises the holder of a Class 4 flight instructor rating — aeroplane, the holder of the Class 1 or Class 2 rating shall do so in accordance with the personnel licensing standards.

(2) Where the holder of a Class 1 or Class 2 flight instructor rating — helicopter supervises the holder of a Class 4 flight instructor rating — helicopter, the holder of the Class 1 or Class 2 rating shall do so in accordance with the personnel licensing standards.

Class 4 — Record Keeping

401.64 The holder of a Class 4 flight instructor rating — aeroplane or a Class 4 flight instructor rating - helicopter shall, in respect of the trainees under the supervision of the holder, keep records in accordance with the personnel licensing standards.

Period of Validity

401.65 A Class 1, 2, 3 or 4 flight instructor rating — aeroplane or a Class 1, 2, 3 or 4 flight instructor rating - helicopter is valid for the period specified on the licence in accordance with the personnel licensing standards.

Renewal of Flight Instructor Rating

401.66 The Minister shall renew a flight instructor rating in accordance with the personnel licensing standards if the holder of the rating continues to meet the requirements for the endorsement of the rating referred to in section 401.06.

Flight Test Records

401.67(1) The Minister shall establish, maintain and evaluate a flight test record for each holder of a flight instructor rating - aeroplane, flight instructor rating — helicopter or flight instructor rating — aeroplane — aerobatic in accordance with the personnel licensing standards.

(2) Where the evaluation of a flight test record done pursuant to subsection (1) indicates that follow-up action is required, the Minister shall ensure that the follow-up action is carried out in accordance with the personnel licensing standards.

(amended 2006/12/14)

401.68 *Reserved*

DIVISION XVIII - FLIGHT INSTRUCTOR RATING - AEROPLANE

Class 4 - Privileges

401.69 The holder of a Class 4 flight instructor rating — aeroplane may

(a) conduct dual flight instruction in respect of the issuance of a pilot permit -recreational -aeroplane or pilot licence — aeroplane or the endorsement of a night rating or a VFR OTT rating on a pilot licence — aeroplane;

(amended 2001/03/01)

(b) authorize a trainee to conduct a solo flight in an aeroplane;

(amended 2001/03/01)

(c) recommend a trainee for a flight test in respect of the issuance of a pilot permit — recreational — aeroplane or pilot licence — aeroplane;

(amended 2001/03/01)

(d) recommend a trainee for the endorsement of a night rating or a VFR OTT rating on the trainee's pilot licence — aeroplane; and

(amended 2001/03/01)

(e) exercise the privileges of a flight instructor rating — ultra-light aeroplane without being under the supervision prescribed in paragraph 401.62(b).

(amended 2001/03/01)

Class 3 - Privileges

401.70 The holder of a Class 3 flight instructor rating — aeroplane may

(a) exercise the privileges of a Class 4 flight instructor rating — aeroplane; and

(b) act as chief flight instructor of a flight training unit where there is no other flight instructor for the flight training unit.

Class 2 - Privileges

401.71 The holder of a Class 2 flight instructor rating — aeroplane may

(a) exercise the privileges of a Class 3 flight instructor rating — aeroplane;

(b) supervise the holder of a Class 4 flight instructor rating — aeroplane; and

(c) act as chief flight instructor of a flight training unit.

Class 1 - Privileges

401.72 The holder of a Class 1 flight instructor rating — aeroplane may

- (a) exercise the privileges of a Class 2 flight instructor rating — aeroplane; and
- (b) conduct ground school instruction and flight training in respect of the endorsement of a flight instructor rating — aeroplane.

401.73 to 401.76 *Reserved*

**DIVISION XIX - FLIGHT INSTRUCTOR RATING
— HELICOPTER**

Class 4 - Privileges

401.77 The holder of a Class 4 flight instructor rating — helicopter may

- (a) conduct dual flight instruction in respect of the issuance of a pilot permit — recreational — helicopter or pilot licence — helicopter or the endorsement of a night rating or a VFR OTT rating on a pilot licence — helicopter;
(amended 2001/03/01)
- (b) authorize a trainee to conduct a solo flight in a helicopter;
(amended 2001/03/01)
- (c) recommend a trainee for a flight test in respect of the issuance of a pilot permit — recreational — helicopter or pilot licence — helicopter; and
(amended 2001/03/01)
- (d) recommend a trainee for the endorsement of a night rating or a VFR OTT rating on the trainee's pilot licence — helicopter.
(amended 2001/03/01)

Class 3 - Privileges

401.78 The holder of a Class 3 flight instructor rating — helicopter may exercise the privileges of a Class 4 flight instructor rating — helicopter.

Class 2 - Privileges

401.79 The holder of a Class 2 flight instructor rating — helicopter may

- (a) exercise the privileges of a Class 3 flight instructor rating — helicopter;
- (b) supervise the holder of a Class 4 flight instructor rating — helicopter; and
- (c) act as chief flight instructor of a flight training unit.

Class 1 - Privileges

401.80 The holder of a Class 1 flight instructor rating — helicopter may

- (a) exercise the privileges of a Class 2 flight instructor rating — helicopter; and
- (b) conduct ground school instruction and flight training in respect of the endorsement of a licence with a flight instructor rating — helicopter.

**DIVISION XX - FLIGHT INSTRUCTOR RATINGS
— GLIDER, BALLOON AND GYROPLANE**

Rating

401.81 The Minister shall, as appropriate, endorse the following permits and licences with a flight instructor rating — glider, balloon or gyroplane if the applicant for the rating meets the requirements referred to in section 401.06:

- (a) pilot permit — gyroplane;
- (b) pilot licence — glider; and
- (c) pilot licence — balloon.

Gliders - Privileges

401.82 The holder of a flight instructor rating — glider may

- (a) conduct dual flight instruction in respect of the issuance of a pilot licence — glider;
- (b) conduct dual flight instruction in respect of the endorsement of a type rating on a pilot licence — glider;
- (c) authorize a trainee to conduct solo flight in a glider;
- (d) conduct ground school instruction and flight training in respect of the endorsement of a pilot licence — glider with a flight instructor rating — glider;
- (e) conduct a flight test and recommend a trainee for
 - (i) the issuance of a pilot licence — glider,
 - (ii) the endorsement of a pilot licence — glider with a type rating, or
 - (iii) the endorsement of a pilot licence — glider with a flight instructor rating — glider;
- (f) certify the competency of the holder of a pilot licence — glider to carry passengers in a glider; and
- (g) endorse a trainee's personal log in respect of methods of launch.

Balloons - Privileges

401.83 The holder of a flight instructor rating — balloon may

- (a) authorize a trainee to conduct solo flight in a balloon;
- (b) conduct ground school instruction and dual flight instruction in respect of the endorsement of a pilot licence — balloon with a flight instructor rating — balloon;
(amended 2001/03/01)
- (c) conduct a flight test and recommend a trainee for
 - (i) the issuance of a pilot licence - balloon, or
 - (ii) the endorsement of a pilot licence - balloon with a flight instructor rating - balloon;
- (d) recommend a trainee for the endorsement of a type rating on the trainee's pilot licence — balloon;
- (e) where the holder's licence is endorsed with a night rating,
 - (i) conduct dual flight instruction in respect of the endorsement of a night rating on a pilot licence — balloon, and
 - (ii) recommend a trainee for the endorsement of a night rating on the trainee's pilot licence — balloon;
(amended 2001/03/01)
- (f) endorse a trainee's personal log in respect of methods of inflation; and
(amended 2001/03/01)
- (g) conduct dual flight instruction in respect of the issuance of a pilot licence — balloon.
(amended 2001/03/01)

Gyroplanes - Privileges

401.84 The holder of a flight instructor rating — gyroplane may

- (a) conduct flight instruction in respect of the issuance of a pilot permit — gyroplane or the endorsement of a type rating on such a permit;
- (b) authorize a trainee to conduct solo flight in a gyroplane;
- (c) recommend a trainee for a flight test in respect of the issuance of a pilot permit — gyroplane;
- (d) recommend a trainee for the endorsement of a type rating on the trainee's pilot permit — gyroplane;

- (e) where the holder's licence is endorsed with a night rating,
 - (i) conduct flight training in respect of the endorsement of a night rating on a pilot permit — gyroplane, and
 - (ii) recommend a trainee for the endorsement of a night rating on the trainee's pilot permit — gyroplane; and
- (f) where the holder has acquired the experience and qualifications specified in the personnel licensing standards,
 - (i) conduct ground school instruction and flight training in respect of the endorsement of a flight instructor rating — gyroplane on a pilot permit — gyroplane,
 - (ii) recommend a trainee for a flight test for the endorsement of a flight instructor rating — gyroplane on a pilot permit - gyroplane, and
 - (iii) conduct a flight test and recommend a trainee for
 - (A) the issuance of a pilot permit — gyroplane, or
 - (B) the endorsement of a pilot permit — gyroplane with a flight instructor rating — gyroplane.

Period of Validity

401.85(1) Flight instructor ratings — glider and balloon are valid for the period specified on the licence in accordance with the personnel licensing standards, if the period does not exceed 37 months.

(2) A flight instructor rating — gyroplane is valid for the period specified on the licence in accordance with the personnel licensing standards, if the period does not exceed 13 months.

Renewal of Flight Instructor Ratings — Glider, Balloon and Gyroplane

401.86 The Minister shall renew a flight instructor rating — glider, balloon or gyroplane in accordance with the personnel licensing standards, where the holder of the rating continues to meet the requirements referred to in section 401.06 for the endorsement of the rating.

DIVISION XXI - FLIGHT INSTRUCTOR RATING — ULTRA-LIGHT AEROPLANE

Rating

401.87 The Minister shall endorse a pilot permit — ultra-light aeroplane with a flight instructor rating — ultra-light aeroplane if the applicant for the rating meets the requirements referred to in section 401.06.

Privileges

401.88 The holder of a flight instructor rating — ultra-light aeroplane may

(a) operate an ultra-light aeroplane with one other person on board if the holder has not less than 10 hours of flight time as a pilot of an ultra-light aeroplane with the same control configuration and the flight is conducted for the purpose of providing dual flight instruction for

(amended 2005/12/01)

(i) the issuance of a pilot permit — ultra-light aeroplane,

(ii) the endorsement of a pilot permit — ultra-light aeroplane with a passenger-carrying rating, or

(iii) the endorsement of a pilot permit — ultra-light aeroplane with a flight instructor rating — ultra-light aeroplane;

(b) authorize the holder of a student pilot permit — ultra-light aeroplane to conduct a solo flight in an ultra-light aeroplane;

(amended 2005/12/01)

(c) conduct ground school instruction for the endorsement of a pilot permit — ultra-light aeroplane with a flight instructor rating — ultra-light aeroplane;

(amended 2005/12/01)

(d) certify that an applicant has demonstrated the ability to meet the level of competency specified in the personnel licensing standards for

(amended 2005/12/01)

(i) the issuance of a pilot permit — ultra-light aeroplane, or

(ii) the endorsement of a pilot permit — ultra-light aeroplane with a flight instructor rating — ultra-light aeroplane; and

(e) recommend an applicant for a flight test for the issuance of a passenger-carrying rating.

(amended 2005/12/01)

Period of Validity

401.89 A flight instructor rating — ultra-light aeroplane is valid for the period specified on the licence in accordance with the personnel licensing standards, if the period does not exceed 61 months.

(amended 2001/03/01)

***Renewal of Flight Instructor Rating — Ultra-light
Aeroplane***

401.90 The Minister shall renew a flight instructor rating — ultra-light aeroplane in accordance with the personnel licensing standards where the holder of the rating continues to meet the requirements referred to in section 401.06 for the endorsement of the rating.
(amended 2003/06/01)

**DIVISION XXII - FLIGHT INSTRUCTOR
RATING - AEROPLANE - AEROBATIC**

Rating

401.91 The Minister shall endorse a commercial pilot licence - aeroplane or an airline transport pilot licence - aeroplane with a Class 1 or Class 2 flight instructor rating — aeroplane — aerobatic if the applicant for the rating meets the requirements referred to in section 401.06.

Class 2 Rating - Privileges

401.92 The holder of a Class 2 flight instructor rating — aeroplane — aerobatic may

- (a) conduct flight instruction in the performance of aerobatic manoeuvres; and
- (b) certify a licensed pilot's personal log with respect to competency to perform aerobatic manoeuvres.

Class 1 Rating - Privileges

401.93 The holder of a Class 1 flight instructor rating — aeroplane — aerobatic may

- (a) exercise the privileges of a Class 2 flight instructor rating — aeroplane — aerobatic;
- (b) provide ground school and flight instruction in respect of the endorsement of a licence with a flight instructor rating — aeroplane — aerobatic; and
- (c) recommend a trainee for a flight test in respect of the endorsement of the trainee's licence with a flight instructor rating — aeroplane — aerobatic.

**DIVISION XXIII - FLIGHT INSTRUCTOR
RATING - GLIDER - AEROBATIC**

Rating

401.94 The Minister shall endorse a licence endorsed with a flight instructor rating — glider with a flight instructor rating — glider — aerobatic if the applicant for the flight instructor rating — glider — aerobatic meets the requirements referred to in section 401.06.

Privileges

401.95 The holder of a flight instructor rating — glider — aerobatic may

- (a) provide, in a glider, flight instruction in the performance of aerobatic manoeuvres;
- (b) provide dual flight instruction to the holder of a flight instructor rating — glider in respect of the endorsement of the holder's licence with an aerobatic rating — glider; and
- (c) recommend the holder of a flight instructor rating — glider for the endorsement of an aerobatic rating — glider on the holder's licence.

401.96 to 401.99 *Reserved*



CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

402

SUBPART 2 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

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[illegible]

402 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 2 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

DIVISION I - GENERAL

Interpretation

402.01(1) In this Subpart, “proficiency check” means an assessment of the operational knowledge, skill and judgement of the holder of, or an applicant for, an air traffic control licence or rating, with respect to the provision of the requisite air traffic services relating to that licence or rating at an operational location.

(2) Any reference in this Subpart to the personnel licensing standards is a reference to the *Personnel Licensing and Training Standards Respecting Air Traffic Controller Licences and Ratings*.

Application

402.02 This Subpart applies to persons who hold an air traffic controller licence or who apply for the issuance of such a licence or the endorsement of such a licence with a rating.

Issuance and Endorsement of Air Traffic Controller Licences and Ratings

402.03(1) Subject to Section 6.71 of the Act and subsections (3) and (4), the Minister shall, on receipt of an application submitted in the form and manner specified in the personnel licensing standards, issue an air traffic controller licence or endorse the applicant’s air traffic controller licence with a rating where the applicant provides documentation to the Minister that establishes

(a) the applicant’s citizenship; and

(b) that the applicant meets the applicable requirements set out in the personnel licensing standards in respect of

(i) minimum age,

(ii) medical fitness,

(iii) knowledge, and
(amended 2008/04/17)

(iv) experience,
(amended 2008/04/17)

(v) [Repealed 2008/04/17].

(1.1) An application shall also include
(amended 2008/04/17)

(a) one photograph of the applicant that meets the requirements of subsection 422.03(3) of the personnel licensing standards; and
(amended 2008/04/17)

(b) documentation establishing that the applicant demonstrated, by means of an evaluation, their ability to speak and understand English, or both English and French, at the operational or expert level in accordance with the language proficiency scale set out in the table to subsection 422.03(4) of the personnel licensing standards.
(amended 2008/04/17)

(2) The Minister may specify in an air traffic controller licence any condition in respect of the exercise of the privileges of the licence or the privileges of a rating endorsed on the licence, if the condition is required to ensure aviation safety, including any condition in respect of

(a) the training of the licence holder;

(b) the supervision of the licence holder;

(c) the equipment that the licence holder may use; or

(d) the operational location at which the licence holder may exercise the privileges of the holder's air traffic controller licence.

(3) Where air traffic control services are provided at an operational location in English only, the Minister shall not endorse an air traffic controller licence with a rating for that operational location unless the applicant has passed an examination that demonstrates that the applicant is sufficiently competent in the use of that language to be able to engage in two-way radiocommunication involving the exchange of safety and control messages.

(4) Where air traffic control services are provided at an operational location in both official languages, the Minister shall not endorse an air traffic controller licence with a rating for that operational location unless the applicant has passed an examination that demonstrates that the applicant is sufficiently competent in the use of both official languages to be able to engage in two-way radiocommunication involving the exchange of safety and control messages.

Prohibitions

402.04(1) No person shall act as an air traffic controller or exercise the privileges of an air traffic controller licence unless
(amended 2010/02/02)

(a) the person holds an air traffic controller licence endorsed with a rating appropriate to the privileges being exercised and with the appropriate operational location;
(amended 2010/02/02)

(b) the licence is valid;
(amended 2010/02/02)

(c) the person holds a valid Category 1 or 2 medical certificate; and
(amended 2010/02/02)

(d) the person can produce the licence and certificate when exercising those privileges.
(amended 2010/02/02)

(2) Paragraph (1)(a) does not apply to a person who, while under supervision, acts as an air traffic controller or exercises the privileges of an air traffic controller licence when undergoing

(a) instruction, training or testing in respect of an air traffic controller licence; or

(b) ATC unit familiarization in the course of the person's employment.

Recency Requirements

402.05 The holder of an air traffic controller licence shall not exercise the privileges of that licence at an air traffic control unit unless the holder has successfully completed a proficiency check within the preceding 12 months.

Provisional Licences and Ratings

402.06(1) Where an applicant for an air traffic controller licence or for the endorsement of such a licence with a rating meets the applicable requirements set out in the personnel licensing standards, the Minister shall, as appropriate,

(a) issue a provisional air traffic controller licence to the applicant endorsed with a rating appropriate to the functions to be exercised and with the appropriate operational location; or

(b) endorse the applicant's air traffic controller licence with a provisional rating for the appropriate operational location.

(2) A provisional air traffic controller licence or rating remains in effect until the earlier of

(a) the date of issuance of an air traffic controller licence by the Minister pursuant to section 402.03, and

(b) a date 90 days after the issuance of the provisional air traffic controller licence or the endorsement of an air traffic controller licence with a provisional rating.

Privileges

402.07 The holder of an air traffic controller licence may, in accordance with Part VIII, the personnel licensing standards and the *Canadian Domestic Air Traffic Control Separation Standards*, provide or supervise air traffic control services to

(a) airport traffic at any operational location for which the licence is endorsed with an airport control rating;

(b) aircraft at any operational location for which the licence is endorsed with a terminal control rating, an area control rating or an oceanic control rating; or

(c) airshow traffic at the operational location in respect of which a special flight operations certificate has been issued by the Minister pursuant to section 603.67.

Validity of Air Traffic Controller Licences
(amended 2010/02/02)

402.08 (1) An air traffic controller licence that is issued in the form of a booklet label is not valid unless
(amended 2010/02/02)

(a) the label is affixed in an aviation document booklet;
(amended 2010/02/02)

(b) the booklet number displayed on the label matches the number of the booklet; and
(amended 2010/02/02)

(c) the booklet is signed by the holder.
(amended 2010/02/02)

(2) The validity period of an air traffic controller licence that is issued in the form of a booklet label starts on the day on which it is issued and ends on the expiry date of the aviation document booklet in which it is affixed.
(amended 2010/02/02)

(3) The expiry date of an aviation document booklet that has an air traffic controller licence affixed in it is
(amended 2010/02/02)

(a) the first day of the sixty-first month following the day on which the booklet was issued, if the application for the licence included documentation establishing that the holder demonstrated an expert level ability during their language proficiency evaluation; or
(amended 2010/02/02)

(b) the first day of the sixty-first month following the day on which the holder's language proficiency evaluation was conducted, if the application for the licence included documentation establishing that the holder demonstrated an operational level ability during the evaluation.
(amended 2010/02/02)

(4) An air traffic controller licence, other than a provisional air traffic controller licence, that was not issued in the form of a booklet label is valid until June 30, 2010.
(amended 2010/02/02)

Language Proficiency Evaluations
(amended 2010/02/02)

402.09 If the documentation included with an application for an air traffic controller licence that was issued in the form of a booklet label establishes that the holder demonstrated an operational level ability during their language proficiency evaluation, the holder shall, for the purposes of renewing the licence, be evaluated again within the six months preceding the expiry date of the aviation document booklet in which it is affixed.
(amended 2010/02/02)

402.10 to 402.15 Reserved
(amended 2010/02/02)

DIVISION II - TRAINING RECORDS

Training Records

402.16 The manager of an ATC unit shall

- (a) maintain, on a form provided by the Minister, a training record for each person undergoing training at the ATC unit for the purpose of obtaining a rating or operational location endorsement in respect of the ATC unit;
- (b) enter the licence number of the training officer or supervisor in the training record and certify that any information entered in the record is correct by signing and dating the entry and any amendment thereto;
- (c) at the request of any person who is undergoing or has undergone training at the ATC unit, provide a copy of the person's training record to the person; and
- (d) at the request of the Minister, provide the Minister with a copy of the training record of any person who is undergoing or has undergone training at the ATC unit and who holds an air traffic controller licence.

Reserved

402.17



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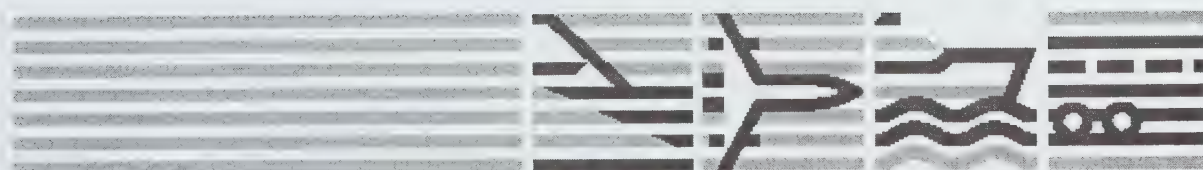
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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 3 - AIRCRAFT MAINTENANCE ENGINEER LICENCES AND RATINGS

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[illegible]

PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 3 - AIRCRAFT MAINTENANCE ENGINEER LICENCES AND RATINGS

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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 3 - AIRCRAFT MAINTENANCE ENGINEER LICENCES AND RATINGS

DIVISION I - GENERAL

Application

403.01 This Subpart applies to

(a) holders of an aircraft maintenance engineer (AME) licence and applicants for the issuance or renewal of such a licence; and

(b) approved training organizations that provide aircraft maintenance training courses, and persons applying to become approved training organizations.

Requirement to Hold AME Licence

403.02 (1) Subject to subsection (2), no person shall exercise the privileges of an aircraft maintenance engineer (AME) licence unless the person

(a) holds an AME licence issued pursuant to this Subpart;

(b) exercises the privileges in accordance with the ratings and any limitations endorsed on the licence; and

(c) exercises the privileges in accordance with Part V.

(2) A person who does not meet the conditions specified in subsection (1) may sign a maintenance release if the person holds a restricted certification authority issued pursuant to Part V.

Issuance and Endorsement of AME Licence

403.03 Subject to Section 6.71 of the Act, the Minister shall, on receipt of an application submitted in the form and manner specified in Chapter 566 of the *Airworthiness Manual*, issue an aircraft maintenance engineer (AME) licence to the applicant or endorse the applicant's AME licence with a rating, where the applicant provides documentation to the Minister that establishes

- (a) the applicant's citizenship; and
- (b) that the applicant meets the requirements set out in Chapter 566 of the *Airworthiness Manual* in respect of
 - (i) minimum age,
 - (ii) training,
 - (iii) knowledge,
 - (iv) experience, and
 - (v) skill.

Validity Period of AME Licence

403.04 Subject to Section 403.05, an aircraft maintenance engineer (AME) licence is valid for the period specified in the licence.

Recency Requirements

403.05 (1) No holder of an aircraft maintenance engineer (AME) licence shall exercise the privileges of the licence unless

- (a) the licence was issued within the preceding 24 months; or
- (b) the holder of the licence has, for at least six months within the preceding 24 months,
 - (i) performed aircraft maintenance,
 - (ii) supervised the performance of aircraft maintenance,
 - (iii) supervised in an executive capacity the performance of aircraft maintenance, or
 - (iv) served as an aviation maintenance instructor or supervised another aviation maintenance instructor in an aircraft maintenance training course provided by an approved training organization.

(2) The holder of an AME licence who is not in compliance with subsection (1) shall regain currency in accordance with the standards set out in Chapter 566 of the *Airworthiness Manual* prior to exercising the privileges of the licence.

403.06 and 403.07 Reserved

DIVISION II - APPROVED TRAINING ORGANIZATIONS

Approved Training Organizations

403.08 (1) No person shall provide aircraft maintenance training courses as an approved training organization unless the person holds an approved training organization certificate.

(2) The Minister shall issue an approved training organization certificate to a person who

(a) makes an application for a certificate; and

(b) meets the standards respecting training courses, facilities and instructors that are applicable to the training to be provided, as set out in Chapter 566 of the *Airworthiness Manual*.

(3) The minister shall approve a policy manual or a training control manual and any amendments to that manual if the manual and amendments meet the requirements of Standard 566 - *Aircraft Maintenance Engineer Licensing and Training*.
(amended 2003/06/01)

403.09 to 403.11 Reserved



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CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

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SUBPART 4 - MEDICAL REQUIREMENTS

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**PART IV - PERSONNEL
LICENSING AND TRAINING
SUBPART 4 - MEDICAL REQUIREMENTS
DIVISION I - GENERAL**

Interpretation

404.01 (1) In this Subpart, “CAME” means a Civil Aviation Medical Examiner appointed by the Minister to conduct medical examinations of applicants for the issuance or renewal of medical certificates pursuant to subsection 404.04(1).

(2) Any reference in this Subpart to the personnel licensing standards is a reference to the *Personnel Licensing and Training Standards respecting Medical Requirements*.

Application

404.02 This Subpart applies to

(a) persons who hold or who apply for the issuance or renewal of a medical certificate for the purpose of exercising the privileges of a permit, licence or rating referred to in section 404.10; and

(b) the physicians referred to in section 404.16.

DIVISION II - MEDICAL CERTIFICATE

Requirement to Hold a Medical Certificate

404.03 (1) No person shall exercise or attempt to exercise the privileges of a permit, licence or rating unless the person holds a valid medical certificate of a category that is appropriate for that permit, licence or rating, as specified in section 404.10.
(amended 2010/02/02)

(2) A medical certificate that is issued in the form of a booklet label is not valid unless
(amended 2010/02/02)

(a) the label is affixed in an aviation document booklet;
(amended 2010/02/02)

(b) the booklet number displayed on the label matches the number of the booklet; and
(amended 2010/02/02)

(c) the booklet is signed by the holder.
(amended 2010/02/02)

***Issuance, Renewal, Validity Period and Extension
of a Medical Certificate***
(amended 2008/05/01)

404.04 (1) Subject to subsection (2) and subsection 404.05(1), the Minister shall issue or renew a medical certificate on receipt of an application therefor if

(a) where the applicant is applying for a medical certificate in connection with an application for a student pilot permit-aeroplane, pilot permit - recreational, pilot or student pilot permit - ultra-light aeroplane, a pilot licence - glider or student pilot permit - glider, the applicant has completed and submitted a medical declaration, in accordance with the personnel licensing standards, that attests to the fact that the applicant is medically fit to exercise the privileges of the permit or licence that is applied for; or

(b) in any case not referred to in paragraph (a), it is established, by means of a medical examination conducted by a physician referred to in section 404.16, that the applicant meets the medical fitness requirements specified in the personnel licensing standards.

(1.1) A medical certificate is also renewed if it is signed, dated and stamped in accordance with paragraph 404.18(a).

(amended 2007/12/30)

(2) The Minister

(a) may request an applicant for the issuance or renewal of a medical certificate to undergo, before a specified date, any medical tests or examinations that are necessary to determine whether the applicant meets the medical fitness requirements specified in the personnel licensing standards;

(b) shall not issue or renew a medical certificate until the applicant has undergone all of the tests and examinations requested by the Minister pursuant to paragraph (a); and

(c) may suspend, or refuse to issue or renew, the applicant's medical certificate if the applicant fails to comply with the request referred to in paragraph (a) before the specified date.

(3) The Minister may

(a) request the holder of a medical certificate to undergo, before a specified date, any medical tests or examinations or provide any additional medical information, as necessary to determine whether the holder continues to meet the medical fitness requirements specified in the personnel licensing standards; and

(b) suspend, or refuse to renew, the holder's medical certificate if the holder fails to comply with the request referred to in paragraph (a) before the specified date.

(4) A medical certificate is subject to any restrictions or limitations that have been endorsed on the certificate in accordance with subsection 404.05(2).

(5) A medical certificate is valid starting on the day on which the applicant signs the medical declaration submitted for the issuance or renewal of the certificate or on the day on

which the medical examination for the issuance or renewal of the certificate is conducted until the earliest of

(amended 2007/12/30)

(a) the end of the validity period set out in the table to subsection (6) for the certificate, (amended 2007/12/30)

(b) the end of any shorter validity period endorsed on the certificate by the Minister, and (amended 2007/12/30)

(c) the day on which a new medical certificate is issued to the holder. (amended 2007/12/30)

(6) Subject to subsection (9), the validity period of a medical certificate for a permit, licence or rating that is set out in column 1 of the table to this subsection is set out in column 2 if the holder of the permit, licence or rating is less than 40 years of age and in column 3 if the holder of the permit, licence or rating is 40 years of age or older.

(amended 2007/12/30)

TABLE
(amended 2007/12/30)

	Column 1	Column 2	Column 3
Item	Licence, permit or rating	Medical certificate validity period if the holder is less than 40 years of age	Medical certificate validity period if the holder is 40 years of age or older
1	Airline transport pilot licence — aeroplane	12 months	6 months
2	Airline transport pilot licence — helicopter	12 months	6 months
3	Commercial pilot licence — aeroplane	12 months	6 months
4	Commercial pilot licence — helicopter	12 months	6 months
5	Private pilot licence — aeroplane	60 months	24 months
6	Private pilot licence — helicopter	60 months	24 months
7	Pilot licence — glider	60 months	60 months
8	Pilot licence — balloon	60 months	24 months
9	Pilot permit — recreational	60 months	24 months
10	Pilot permit — gyroplane	60 months	24 months
11	Pilot permit — ultra-light aeroplane	60 months	60 months
12	Flight instructor rating — glider	60 months	60 months
13	Flight instructor rating — ultra-light aeroplane	60 months	60 months

14	Flight engineer licence	12 months	12 months
15	Air traffic controller licence	24 months	12 months
16	Student pilot permit — aeroplane	60 months	60 months
17	Student pilot permit — helicopter	60 months	60 months
18	Student pilot permit — glider	60 months	60 months
19	Student pilot permit — gyroplane	60 months	60 months
20	Student pilot permit — balloon	60 months	60 months
21	Student pilot permit — ultra-light aeroplane	60 months	60 months

(7) The end of the validity period of a medical certificate that is issued or renewed under subsection (1) is calculated from the first day of the month following
(amended 2007/12/30)

(a) the day on which the applicant signs the medical declaration submitted for the issuance or renewal of the certificate; or
(amended 2007/12/30)

(b) the day on which the medical examination for the issuance or renewal of the certificate is conducted.
(amended 2007/12/30)

(8) The end of the validity period of a medical certificate that is renewed in accordance with subsection (1.1) is calculated from
(amended 2007/12/30)

(a) the day on which the preceding validity period ends if the medical examination for the renewal of the certificate is conducted within 90 days before the end of that validity period; or
(amended 2007/12/30)

(b) the first day of the month following the day on which the medical examination for the renewal of the certificate is conducted if the examination is conducted more than 90 days before the end of the preceding validity period.
(amended 2007/12/30)

(9) The Minister may endorse a shorter validity period on a medical certificate if a physician referred to in section 404.16 recommends the shorter validity period in their medical report.
(amended 2007/12/30)

(10) Despite subsection (6), the Minister shall extend the validity period of a medical certificate for a period of not more than 60 days beginning on the day on which the certificate would otherwise expire, if
(amended 2008/05/01)

(a) the application for extension of the certificate is made while the certificate is still valid;
and

(amended 2008/05/01)

(b) the applicant demonstrates that there has been no reasonable opportunity to undergo a medical examination within the 90 days before the day on which the certificate would otherwise expire.

(amended 2008/05/01)

Medical Standards Flexibility - Limitations and Restrictions

404.05 (1) The Minister may, in accordance with the personnel licensing standards, issue a medical certificate to an applicant who does not meet the requirements referred to in subsection 404.04(1) where it is in the public interest and is not likely to affect aviation safety.

(2) Where the Minister issues a medical certificate under subsection (1), the Minister shall endorse the certificate with any limitation or restriction that is necessary to ensure aviation safety.

(3) The Minister may amend or remove any limitation or restriction referred to in subsection (2) when it is no longer required to ensure aviation safety.

(4) The Minister may suspend or cancel a medical certificate if the applicant fails to comply with any limitation or restriction referred to in subsection (2).

(5) Before issuing a medical certificate under subsection (1), the Minister may require an applicant to undergo any practical test in respect of the functions of a flight crew member or air traffic controller, as appropriate, or any medical examination that is necessary to determine whether the applicant meets the medical fitness requirements specified in the personnel licensing standards.

(6) For the purposes of a practical test in respect of the functions of a flight crew member, the Minister may designate as a testing officer any person who holds

(a) a flight crew licence endorsed with a flight instructor rating that is valid for the category of aircraft to be used during the practical test; or

(b) a flight crew licence and has the qualifications required to conduct the practical test.

(7) For the purposes of a practical test in respect of the functions of an air traffic controller, the test shall be conducted in an actual operational environment under the supervision of an Air Traffic Services manager, a regional aviation medical officer, an aviation medical officer or a CAME, in accordance with the procedures set out in the personnel licensing standards.

Prohibition Regarding Exercise of Privileges

404.06 (1) Subject to subsection (3), no holder of a permit, licence or rating shall exercise the privileges of the permit, licence or rating if

(a) one of the following circumstances exists and could impair the holder's ability to exercise those privileges safely:

- (i) the holder suffers from an illness, injury or disability,
- (ii) the holder is taking a drug, or
- (iii) the holder is receiving medical treatment;

(b) the holder has been involved in an aircraft accident that is wholly or partially the result of any of the circumstances referred to in paragraph (a);

(c) the holder has entered the thirtieth week of pregnancy, unless the medical certificate is issued in connection with an air traffic controller licence, in which case the holder may exercise the privileges of the permit, licence or rating until the onset of labour; or

(d) the holder has given birth in the preceding six weeks.

(2) No holder of a permit, licence or rating who is referred to in paragraph (1)(b), (c) or (d) shall exercise the privileges of the permit, licence or rating unless

(a) the holder has undergone a medical examination referred to in section 404.18; and

(b) the medical examiner has indicated on the holder's medical certificate that the holder is medically fit to exercise the privileges of the permit, licence or rating.

(3) The Minister may, in writing, authorize the holder of a medical certificate to exercise, under the circumstances described in paragraph (1)(a) or (d), the privileges of the permit, licence or rating to which the medical certificate relates if such authorization is in the public interest and is not likely to affect aviation safety.

404.07 to 404.09 *Reserved*

**DIVISION III - MEDICAL CERTIFICATE
REQUIREMENTS**

***Medical Certificate Requirements for Personnel
Licences***

404.10 (1) A Category 1 medical certificate is required for the following licences:

- (a) commercial pilot licence - aeroplane or helicopter;
 - (b) airline transport pilot licence - aeroplane or helicopter; and
 - (c) flight engineer licence.
- (amended 2007/12/30)

(2) A Category 1 or 2 medical certificate is required for an air traffic controller licence.
(amended 2007/12/30)

(3) A Category 1 or 3 medical certificate is required for the following permits, licences and ratings:

- (a) student pilot permit - helicopter;

- (b) pilot permit - gyroplane;
- (b.1) student pilot permit - gyroplane or balloon;
(amended 2007/12/30)
- (c) private pilot licence - aeroplane or helicopter;
- (d) pilot licence - balloon;
- (e) flight instructor rating - glider; and
- (f) flight instructor rating - ultra-light aeroplane.

(4) A Category 1, 3 or 4 medical certificate is required for the following permits and licences:

- (a) student pilot permit - aeroplane;
- (b) pilot permit - recreational;
- (c) student pilot permit or pilot permit - ultra-light aeroplane;
- (d) student pilot permit - glider; and
- (e) pilot licence - glider.

DIVISION IV - MEDICAL FITNESS

Minister's Assessment

404.11 (1) The Minister shall assess any medical reports submitted pursuant to paragraph 404.17(b) to determine whether an applicant for the issuance or renewal of a medical certificate meets the medical fitness requirements set out in the personnel licensing standards that are necessary for the issuance or renewal of the medical certificate.

(2) The Minister shall, by personal service or by registered mail sent to the applicant at the latest known address of the applicant, immediately

- (a) notify the applicant of the result of an assessment, and
- (b) in the case of an application for the renewal of a medical certificate, inform the applicant that the Minister will, no earlier than 30 days after the date that the applicant receives the notification, make a decision pursuant to subsection 7.1(1) of the Act, based on the result of the assessment.

Reconsideration of Assessment

404.12 (1) An applicant for the renewal of a medical certificate who is assessed by the Minister as not meeting the requirements referred to in subsection 404.11(1) may, within 30 days after the date that the applicant receives the notification referred to in subsection 404.11(2),

- (a) request the Minister to reconsider the assessment; and

(b) submit additional information to the Minister regarding the medical fitness of the applicant in support of the request.

(2) Where the Minister is requested to reconsider an assessment pursuant to subsection (1), the Minister shall

(a) take into consideration any additional information regarding the medical fitness of the applicant; and

(b) immediately notify the applicant in writing of the result of the reconsideration of the assessment.

404.13 to 404.15 *Reserved*

DIVISION V - MEDICAL EXAMINERS

Authority to Conduct Medical Examinations

404.16 No physician shall conduct a medical examination of an applicant for the issuance or renewal of a medical certificate unless the physician conducts the medical examination in the region in which the physician is licensed to practise and
(amended 2007/12/30)

(a) the physician is appointed by the Minister as a CAME;

(b) where the applicant is a regular member of the Canadian Forces or an air cadet, the physician is a Canadian Forces flight surgeon; or

(c) where the applicant resides or is examined in a contracting state other than Canada, the physician is authorized by the licensing authority of the contracting state to conduct such examinations.

Responsibilities of Medical Examiner

404.17 Where a physician referred to in paragraph 404.16(a) or (b) conducts a medical examination of an applicant for the issuance or renewal of a medical certificate, the physician shall

(a) conduct the medical examination in accordance with the procedures set out in the personnel licensing standards; and

(b) submit a medical report to the Minister that specifies the results of the medical examination and contains, if warranted by those results, the physician's recommendation that the medical certificate be restricted to a validity period that is shorter than the validity period set out in the table to subsection 404.04(6) for the certificate.
(amended 2007/12/30)

***Examination for Renewal of a Medical Certificate
or for Permission to Continue to Exercise the
Privileges of a Permit, Licence or Rating
(amended 2007/12/30)***

404.18 When the holder of a medical certificate undergoes a medical examination by a physician referred to in paragraph 404.16(a) or (b) for the purpose of renewing his or her certificate or obtaining permission to continue to exercise the privileges of his or her permit, licence or rating, the physician shall
(amended 2007/12/30)

(a) sign and date the medical certificate and stamp it with his or her official stamp indicating that the holder is “fit” and return the medical certificate to the holder; or
(amended 2007/12/30)

(b) advise the holder that he or she is “unfit” and return the medical certificate to the holder.
(amended 2007/12/30)



CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 5 - FLIGHT TRAINING

405

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PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 5 - FLIGHT TRAINING

DIVISION I - GENERAL

Interpretation

405.01 (1) In this Subpart, "Personnel Licensing and Training Standards Respecting Flight Training" means a publication concerning flight training.

(2) Any reference in this Subpart to the personnel licensing standards is a reference to the *Personnel Licensing and Training Standards Respecting Flight Training*.

Application

405.02 This Subpart applies in respect of the conduct of flight training using an aeroplane, helicopter, glider, balloon, gyroplane or ultra-light aeroplane.

405.03 to 405.10 *Reserved*

DIVISION II - FLIGHT TRAINING PROGRAM

Flight Training Program

405.11 No person shall conduct flight training unless the flight training program is in accordance with the requirements of Subpart 1 in respect of

(a) the initial issuance of a permit, licence or rating;

(b) the renewal of a rating; and

(c) a flight review.

Flight Training Program Approval

405.12 Where a syllabus for a flight training program is not set out in the *Personnel Licensing and Training Standards Respecting Flight Crew Permits, Licences and Ratings*, the Minister shall approve a proposed syllabus for a flight training program if the program meets those standards.

Flight Training Program Outline

405.13 A person who conducts flight training using an aeroplane or helicopter shall provide to each trainee, at the time of commencing a flight training program referred to in Section 405.11, a flight training program outline that meets the personnel licensing standards.

Flight Training Program Requirements

405.14 Flight training that is conducted using an aeroplane or helicopter shall be conducted in accordance with the applicable flight instructor guide and flight training manual or equivalent document and the applicable training manual on human factors.

405.15 to 405.20 *Reserved*

DIVISION III - PERSONNEL AND AIRCRAFT

Qualifications of Flight Instructors

405.21 (1) No person shall conduct flight training or a flight review unless the person is qualified as a flight instructor in accordance with the personnel licensing standards.
(amended 2006/12/14)

(2) In cases where a qualified gyroplane flight instructor is not available, a person may conduct the gyroplane training that has to be acquired to satisfy the experience requirement for the issuance of a pilot permit — gyroplane if the person obtains a written authorization from the Minister to conduct the training in accordance with subsection 421.84(4) of the personnel licensing standards.
(amended 2006/12/14)

(3) A person who conducts flight training toward the issuance of an aircraft type rating may, in the case of training for a holder of a pilot permit — gyroplane, obtain a written authorization from the Minister to conduct the flight training in accordance with paragraph 425.21(7)(c) of the personnel licensing standards if the authorization is in the public interest and is not likely to affect aviation safety.
(amended 2006/12/14)

(4) A person who conducts flight training toward the issuance of an aircraft type rating may, in the case of training for a holder of a student pilot permit — gyroplane, obtain a written authorization from the Minister to conduct the flight training in accordance with paragraph 425.21(7)(d) of the personnel licensing standards if the authorization is in the public interest and is not likely to affect aviation safety.
(amended 2006/12/14)

(5) A person who conducts ground school instruction toward the issuance of a flight instructor rating may obtain a written authorization from the Minister to conduct the ground school instruction in accordance with the personnel licensing standards.
(amended 2006/12/14)

Aircraft Familiarization

405.22 No person shall conduct flight training in an aircraft unless the person is familiar with the flight characteristics, operating limitations and operational performance data specified in the aircraft flight manual or equivalent document.

Training Aircraft Requirements

405.23 No person shall operate a training aircraft unless the aircraft meets the personnel licensing standards.

Flight Training at Aerodrome

405.24 No person shall operate a training aircraft at an aerodrome unless the aerodrome is suitable for the aircraft

(a) to be safely operated within the operating limitations and operational performance data specified in the aircraft flight manual or equivalent document

(i) allowing for the actual aircraft weight and existing air temperature and wind conditions,

(ii) with the power plant operation and landing gear and flap operation, if applicable, recommended by the manufacturer, and

(iii) with smooth transition from take-off to the best rate-of-climb speed using normal piloting skills; and

(b) in the case of a helicopter, to carry out normal transitions from the hover to forward flight and from forward flight to the hover.

405.25 to 405.30 *Reserved*

DIVISION IV - FLIGHT TRAINING OPERATIONS

Training Flight Briefings

405.31 No person shall commence a training flight unless the trainee has received from the flight instructor

(a) a pre-flight briefing; and

(b) where new flight exercises are to be conducted during the flight, preparatory ground instruction.

Authorization of Training Flight

405.32 Before the commencement of a training flight, the flight instructor who will conduct or supervise the training shall

(a) authorize the training flight; and

(b) receive an acknowledgement of that authorization from the trainee.

Pilot Training Record

405.33 (1) A person who conducts flight training for the issuance of a private pilot licence, a commercial pilot licence or a flight instructor rating - aeroplane or helicopter shall, for each trainee, maintain a pilot training record that meets the personnel licensing standards.

(2) On request from a trainee receiving training for the purposes referred to in subsection (1), the person responsible for maintaining the trainee's pilot training record shall

- (a) certify the accuracy of the entries; and
- (b) provide the trainee with the record.

(3) When a trainee has completed flight training, including all of the tests and written examinations required pursuant to Subpart 1, the person who conducted the flight training shall forward the trainee's pilot training record to the Minister.

405.34 to 405.40 *Reserved*



CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 6 - FLIGHT TRAINING UNITS

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**PART IV - PERSONNEL
LICENSING AND TRAINING
SUBPART 6 - FLIGHT TRAINING UNITS
DIVISION I - GENERAL**

Interpretation

406.01 (1) In this Subpart, “Personnel Licensing and Training Standards Respecting Flight Training Units” means a publication concerning flight training units.

(2) Any reference in this Subpart to the personnel licensing standards is a reference to Standard 426 - *Personnel Licensing and Training - Flight Training Units*.
(amended 2005/05/31)

Application

406.02 This Subpart applies in respect of the operation of an aeroplane, helicopter, glider, balloon, gyroplane or ultra-light aeroplane in a flight training service toward obtaining any of the following:

(a) for aeroplanes,

- (i) a private pilot licence,
- (ii) a commercial pilot licence,
- (iii) a landplane or seaplane rating,
- (iv) a flight instructor rating,
- (v) a flight instructor rating - aerobatic,
- (vi) an instrument rating,
- (vii) a multi-engine class rating,
(amended 2006/12/14)
- (viii) a night rating,
- (ix) a VFR over-the-top rating,
- (x) a pilot permit - recreational, or
- (xi) experience in aerobatic manoeuvres;

(b) for helicopters,

- (i) a private pilot licence,
- (ii) a commercial pilot licence,
- (iii) a flight instructor rating,

- (iv) an instrument rating,
 - (v) a night rating,
 - (vi) a VFR over-the-top rating, or
 - (vii) a pilot permit - recreational;
 - (c) for gliders,
 - (i) a pilot licence,
 - (ii) a flight instructor rating,
 - (iii) a flight instructor rating - aerobatic, or
 - (iv) experience in aerobatic manoeuvres;
 - (d) for balloons,
 - (i) a pilot licence,
 - (ii) a flight instructor rating, or
 - (iii) a night rating;
 - (e) for gyroplanes,
 - (i) a pilot permit,
 - (ii) a flight instructor rating, or
 - (iii) a night rating; and
 - (f) for ultra-light aeroplanes,
 - (i) a pilot permit,
 - (ii) a flight instructor rating, or
 - (iii) a passenger-carrying rating.
- (amended 2005/12/01)

Requirement to Hold a Flight Training Unit Operator Certificate

406.03 (1) Subject to subsections (2) and (3), no person shall operate a flight training service in Canada using an aeroplane or helicopter in Canada unless the person holds a flight training unit operator certificate that authorizes the person to operate the service and complies with the conditions and operations specifications set out in the certificate.
(amended 2003/06/01)

(2) A person who does not hold a flight training unit operator certificate may operate a flight training service if

(a) the person holds a private operator certificate or an air operator certificate, the aircraft used for training is specified in the private operator certificate or air operator certificate, and the training is other than toward obtaining a pilot permit - recreational, a private pilot licence, a commercial pilot licence or a flight instructor rating; or

(b) the trainee is

(i) the owner, or a member of the family of the owner, of the aircraft used for training,

(ii) a director of a corporation that owns the aircraft used for training, and the training is other than toward obtaining a pilot permit - recreational or a private pilot licence, or

(iii) using an aircraft that has been obtained from a person who is at arm's length from the flight instructor, and the training is other than toward obtaining a pilot permit - recreational or a private pilot licence.

(amended 2003/06/01)

(3) In the case of flight training conducted under subparagraph (2)(b)(iii), the flight instructor shall

(amended 2003/06/01)

(a) notify the Minister in writing of

(amended 2003/06/01)

(i) the name and address of the person to receive the training,

(ii) the registration of the aircraft to be used,

(iii) the type of training to be conducted,

(iv) the location of the training operations, and

(v) the name and licence number of the flight instructor; and

(b) provide the information to the Minister

(amended 2003/06/01)

(i) prior to commencing training operations,

(ii) within 10 working days after any change to the information, and

(iii) when the training is discontinued.

Eligibility to Hold a Flight Training Unit Operator Certificate

406.04 A person is eligible to hold a flight training unit operator certificate if the person is

(a) a Canadian; or

(b) a citizen, permanent resident or corporation of the United States of America or Mexico.

Notification Requirement

406.05 (1) No person shall operate a flight training unit using a glider, balloon, gyroplane or ultra-light aeroplane in Canada unless the person notifies the Minister in writing of

(a) the legal name, trade name and address of the operator of the flight training unit;

(b) the base of operations;

(c) the category of aircraft;

(d) the type of flight training to be conducted; and

(e) the name of the flight instructor who will be responsible for operational control of the flight training operations.

(2) The information referred to in subsection (1) shall be provided to the Minister by the flight training unit

- (a) prior to commencing flight training operations;
- (b) within 10 working days after any change in the information; and
- (c) upon the service being discontinued.

406.06 to 406.10 *Reserved*

DIVISION II - CERTIFICATION

Issuance or Amendment of a Flight Training Unit Operator Certificate

406.11 (1) Subject to Section 6.71 of the Act, the Minister shall, on receipt of an application submitted in the form and manner specified in the personnel licensing standards, issue or amend a flight training unit operator certificate where the applicant demonstrates to the Minister the ability to

(amended 2006/12/14)

- (a) maintain an adequate organizational structure;
- (b) maintain operational control;
- (c) comply with maintenance requirements;
- (d) meet the personnel licensing standards; and
- (e) conduct the operation safely.

(2) For the purposes of subsection (1), an applicant shall have
(amended 2006/12/14)

(a) a management organization capable of exercising operational control;
(amended 2006/12/14)

(b) managerial personnel who are employed on a full-time basis and who perform the duties related to the following positions:

(amended 2006/12/14)

- (i) chief flight instructor,
- (ii) flight instructor,
- (iii) ground instructor, and

(iv) if the applicant does not hold an approved maintenance organization certificate, a maintenance manager;

(c) aircraft that are properly equipped for and flight crew members who are qualified for the type of flight training that is being conducted;

(amended 2006/12/14)

- (d) an operational control system that meets the requirements of section 406.50;
(amended 2006/12/14)
- (e) a training program that meets the requirements of this Subpart;
(amended 2006/12/14)
- (f) legal custody and control of at least one aircraft or, in the case of an applicant for a flight training unit operator certificate who conducts an integrated course, one aircraft of each class of aircraft that is to be operated;
(amended 2006/12/14)
- (g) in the case of an applicant for a flight training unit operator certificate who conducts an integrated course or who operates a sub-base, a flight training operations manual that meets the requirements of section 406.61 and, in the case of an applicant who conducts an integrated course, a training manual that meets the requirements of section 406.62; and
(amended 2006/12/14)
- (h) a maintenance control system approved under this Subpart.
(amended 2006/12/14)

Contents of a Flight Training Unit Operator Certificate

406.12 A flight training unit operator certificate shall contain the following information:

- (a) the legal name, trade name and address of the flight training unit;
- (b) the number of the certificate;
- (c) the effective date of certification;
- (d) the date of issue of the certificate;
- (e) the general conditions identified in section 406.13;
- (f) specific conditions with respect to
 - (i) the main base and, if applicable, for flight training units conducting training in accordance with a flight training operations manual, sub-bases,
(amended 2006/12/14)
 - (ii) the class and type of aeroplane or the type of helicopter, and
(amended 2006/12/14)
 - (iii) the type of training authorized; and
- (g) where the flight training unit complies with the personnel licensing standards, operations specifications with respect to
 - (i) in the case of a flight training unit that operates aeroplanes or helicopters, the conduct of flight training operations on a temporary basis at a satellite base, and

- (ii) any other condition pertaining to the operation that the Minister deems necessary for aviation safety.

***General Conditions of a Flight Training Unit
Operator Certificate***
(amended 2006/12/14)

406.13 A flight training unit operator certificate shall contain the following general conditions:
(amended 2006/12/14)

- (a) the flight training unit shall maintain the organizational structure referred to in paragraph 406.11(1)(a);
(amended 2006/12/14)
- (b) the flight training unit shall have the personnel referred to in the personnel licensing standards;
- (c) the flight training unit shall have aircraft that are properly equipped for the geographic area of operation and the type of authorized training;
- (d) the flight training unit shall maintain its aircraft in accordance with the maintenance requirements of Parts V and VI and Division IV of this Subpart;
(amended 2006/12/14)
- (e) the flight training unit shall conduct flight training in accordance with the provisions of Subpart 5 and Division V of this Subpart and, if the flight training unit conducts an integrated course or operates a sub-base, it shall also conduct flight training in accordance with the flight training operations manual;
(amended 2006/12/14)
- (f) the flight training unit shall, when required to establish and maintain a training manual in accordance with section 406.62, conduct training in accordance with that training manual;
(amended 2006/12/14)
- (g) the flight training unit shall notify the Minister of any change in its legal name, trade name, base of operations or managerial personnel within 10 working days after the change;
and
(amended 2006/12/14)
- (h) the flight training unit shall conduct a safe operation.
(amended 2006/12/14)

Quality Assurance Program — Integrated Course
(amended 2006/12/14)

406.14 A flight training unit that conducts an integrated course shall establish and maintain a quality assurance program that meets the personnel licensing standards in order to ensure that the flight training unit continues to comply with the conditions and specifications in the flight training unit operator certificate.
(amended 2006/12/14)

406.15 to 406.18 *Reserved*
(amended 2006/12/14)

DIVISION III - PERSONNEL

***Duties of Certificate Holder in Respect of
Maintenance***
(amended 2005/05/31)

406.19 (1) The holder of an operator certificate issued in respect of a flight training unit that operates an aeroplane or a helicopter shall

- (a) appoint a person responsible for the maintenance control system;
- (b) subject to subsection (4), ensure that the person responsible for the maintenance control system has achieved a grade of 70% or more in an open-book examination that demonstrates knowledge of the provisions of the *Canadian Aviation Regulations*;
- (c) ensure that the person responsible for the maintenance control system demonstrates to the Minister knowledge of the topics set out in subsection 426.36(1) of the personnel licensing standards within 30 days after their appointment;
- (d) ensure that the person responsible for the maintenance control system performs the duties referred to in subsections 406.36(1) and 406.47(2) and (3);
- (e) provide the person responsible for the maintenance control system with the financial and human resources necessary to ensure that the holder of the flight training unit operator certificate meets the requirements of these Regulations;
- (f) authorize the person responsible for the maintenance control system to remove aircraft from operation if the removal is justified because of non-compliance with the requirements of these Regulations or because of a risk to aviation safety or the safety of the public; and
- (g) ensure that corrective actions are taken in respect of any findings resulting from a quality assurance program established under section 406.47.

(2) The Minister shall conduct an interview with the person appointed under paragraph (1)(a) to assess their knowledge of the topics referred to in paragraph (1)(c).

(3) The Minister shall notify the person appointed under paragraph (1)(a) of the results of the assessment and identify any deficiencies in their knowledge of the topics within ten days after the interview.

(4) The knowledge requirement set out in paragraph (1)(b) does not apply in respect of

(a) a person responsible for the maintenance control system who held that position on January 1, 1997; or

(b) the holder of an aircraft maintenance engineer (AME) licence.

(5) The holder of a flight training unit operator certificate shall ensure that no person is appointed to be responsible for the maintenance control system or remains responsible for the

system if, at the time of their appointment or during their tenure, they have a record of conviction for

- (a) an offence under section 7.3 of the Act; or
- (b) two or more offences under any of sections 605.84 to 605.86 not arising from a single occurrence.

406.20 *Reserved*
(amended 2005/11/21)

Appointment of Chief Flight Instructor

406.21 (1) Subject to subsections (3) and (4), a flight training unit shall

- (a) appoint as chief flight instructor; and
(amended 2006/12/14)

- (b) ensure that the person appointed as chief flight instructor meets the requirements set out in section 406.22.
(amended 2006/12/14)

(2) A flight training unit shall inform the Minister within 10 working days after

- (a) the appointment of a chief flight instructor; or
- (b) any change in the appointment of a chief flight instructor.

(3) With the authorization of the Minister, a flight training unit may, for a period of up to 60 days, continue flight training operations without a chief flight instructor if the flight training unit complies with the personnel licensing standards.

(4) With the authorization of the Minister, a flight training unit may, for a period of up to six months, continue flight training operations with a chief flight instructor who is subject to a prohibition regarding the exercise of the privileges of a permit, licence or rating pursuant to section 404.06, if the flight training unit complies with the personnel licensing standards.

Requirements for Chief Flight Instructor

406.22 No person shall act as a chief flight instructor unless the person

- (a) has the qualifications required for the position, as set out in the personnel licensing standards; and
- (b) acknowledges in writing that the person knows, accepts and will carry out the responsibilities of the position, as set out in the personnel licensing standards.

Requirements for Assistant Chief Flight Instructor
(amended 2006/12/14)

406.22.1 No flight training unit shall appoint a person as an assistant chief flight instructor and no person shall act as an assistant chief flight instructor unless the person
(amended 2006/12/14)

(a) has the qualifications required for the position, as set out in the personnel licensing standards; and
(amended 2006/12/14)

(b) acknowledges in writing that the person knows, accepts and will carry out the responsibilities of the position, as assigned in writing by the chief flight instructor.
(amended 2006/12/14)

Appointment of Check Instructor

(amended 2006/12/14)

406.22.2 A flight training unit conducting an integrated course in accordance with Division VIII of this Subpart shall
(amended 2006/12/14)

(a) appoint a check instructor; and
(amended 2006/12/14)

(b) ensure that the person appointed as check instructor meets the requirements set out in section 406.22.3.
(amended 2006/12/14)

Requirements for Check Instructor

(amended 2006/12/14)

406.22.3 No person shall act as a check instructor unless the person is a chief flight instructor or
(amended 2006/12/14)

(a) has the qualifications required for the position, as set out in the personnel licensing standards; and
(amended 2006/12/14)

(b) acknowledges in writing that the person knows, accepts and will carry out the responsibilities of the position, as assigned in writing by the chief flight instructor.
(amended 2006/12/14)

Appointment of Flight Instructors

406.23 No flight training unit shall appoint a person as a flight instructor unless the person is qualified in accordance with section 405.21.

Requirements for Ground Instructors

(amended 2006/12/14)

406.24 No flight training unit shall appoint a person as a ground instructor and no person shall act as a ground instructor unless the person holds a flight instructor rating in the appropriate category or meets the personnel licensing standards.
(amended 2006/12/14)

Operational Personnel Records

(amended 2006/12/14)

406.25 A flight training unit shall, at its main base or sub-base, as applicable, establish, maintain and retain for at least two years after an entry is made, for each ground instructor, each flight instructor and every other member of its operational personnel, a record that meets the personnel licensing standards.

(amended 2006/12/14)

Aircraft Familiarization

406.26 No flight training unit shall assign a person to conduct flight training in an aircraft unless the person is familiar with the flight characteristics, operating limitations and operational performance data specified in the aircraft flight manual or equivalent document.

406.27 to 406.30 *Reserved***DIVISION IV - AIRCRAFT*****Aircraft Registration Requirements***

406.31 No flight training unit that is a person described in paragraph 406.04(a) shall operate an aircraft in a flight training service in Canada unless

(a) the aircraft is registered in Canada under Division II of Subpart 2 of Part II or in another contracting state;

(amended 2001/03/01)

(b) where the aircraft is registered in another contracting state, the Minister has authorized its operation; and

(c) in the case of an aircraft other than an ultra-light aeroplane, the aircraft type is approved for operation in Canada.

Aircraft Flight Authority

406.32 No flight training unit shall operate an aircraft in a flight training service unless

(a) in the case of a flight training unit that operates an aeroplane or a helicopter, a certificate of airworthiness that meets the requirements of Article 31 of the Convention has been issued for the aircraft pursuant to section 507.02;

(b) in the case of a flight training unit that operates a glider, a balloon or a gyroplane, a flight authority has been issued for the aircraft pursuant to Subpart 7 of Part V; and

(c) the aircraft meets the requirements of section 405.23.

Safety Belt and Shoulder Harness Requirements

406.33 No flight training unit shall operate an aeroplane or a helicopter unless each front seat, or each seat occupied by a trainee or flight instructor, is equipped with a safety belt that includes a shoulder harness.

Checklists

406.34 For the purpose of establishing safe aircraft operating procedures, a flight training unit that operates an aeroplane or a helicopter shall establish and make readily available to each flight crew member on board the aircraft the checklist referred to in section 602.60 for each aircraft type that it operates.

Maintenance Control System

406.35 A flight training unit that operates an aeroplane or a helicopter shall establish and comply with a maintenance control system that

- (a) consists of policies and procedures regarding the maintenance of aircraft operated by the flight training unit;
- (b) meets the requirements of this Subpart; and
- (c) is described in the flight training unit's maintenance control manual (MCM).

Person Responsible for Maintenance Control System

406.36 (1) The person responsible for the maintenance control system appointed under paragraph 406.19(1)(a) shall, where a finding resulting from a quality assurance program established under section 406.47 is reported to them,
(amended 2005/05/31)

- (a) determine what, if any, corrective actions are required and carry out those actions;
- (b) keep a record of any determination made under paragraph (a) and the reason for it;
- (c) if management functions have been assigned to another person under subsection (2) or (3), communicate any determination regarding a corrective action to that person; and
- (d) notify the accountable executive of any systemic deficiency and of the corrective action taken.

(2) The person responsible for the maintenance control system may assign the management functions for the entire quality assurance program established under section 406.47, including the authority to remove aircraft from operation under paragraph 406.19(1)(f), to another person if
(amended 2005/05/31)

- (a) that person meets the requirements set out in paragraphs 406.19(1)(b) and (c) and subsection 406.19(5); and

(b) the assignment and its scope are described in the maintenance control manual (MCM) of a flight training unit that operates an aeroplane or a helicopter.

(3) The person responsible for the maintenance control system may assign the management functions for specific maintenance control activities, including the authority to remove aircraft from operation under paragraph 406.19(1)(f), to another person if the assignment and its scope are described in the MCM of a flight training unit that operates an aeroplane or a helicopter.
(amended 2005/05/31)

(4) The responsibility of the person responsible for the maintenance control system is not affected by the assignment to another person of management functions under subsection (2) or (3).
(amended 2005/05/31)

(5) If a flight training unit that operates an aeroplane or a helicopter is also the holder of an approved maintenance organization (AMO) certificate issued under section 573.02, the person responsible for the maintenance control system at the flight training unit shall
(amended 2005/05/31)

(a) be the person responsible for maintenance at the AMO appointed under section 573.03; and

(b) meet the requirements referred to in paragraph 406.19(1)(b), subsection 406.19(5) and paragraph 573.03(1)(c).

Maintenance Personnel and Facilities

406.37 A flight training unit shall provide the person who is responsible for its maintenance control system with the staff, facilities, technical and regulatory data, supplies and spare parts referred to in the personnel licensing standards that are necessary for compliance with this Subpart.

Maintenance Control Manual

406.38 (1) A flight training unit that operates an aeroplane or a helicopter shall

(a) establish and submit to the Minister for approval a maintenance control manual that contains the information set out in the personnel licensing standards;

(b) except where otherwise authorized by the Minister in writing where it is demonstrated that the granting of the authorization will not jeopardize the safety of the service, authorize the use of its maintenance control manual and comply with the policies and procedures contained therein;

(c) take steps to ensure that a copy of its maintenance control manual, or of the relevant portions of its maintenance control manual, is made available to each person who performs or certifies a function that is dealt with in the maintenance control manual or in any manual that is incorporated in the maintenance control manual pursuant to subsection (2);

(d) submit amendments to its maintenance control manual to the Minister for approval when instructed to do so by the Minister, where

- (i) the maintenance control manual does not meet the requirements of this Subpart, or
- (ii) the maintenance control manual contains policies or procedures, or a lack thereof, such that the flight training unit's maintenance control system no longer meets the requirements of these Regulations; and

(e) insert amendments to its maintenance control manual into each copy of the manual within 30 days after approval of the amendments pursuant to paragraph (d).

(2) The Minister may authorize the incorporation by reference in a maintenance control manual of detailed procedures manuals prepared by the flight training unit, where

- (a) the policies affecting the detailed procedures remain in the maintenance control manual;
- (b) the incorporation is clearly indicated in the maintenance control manual;
- (c) the flight training unit ensures that the incorporated manuals meet the requirements of this Section; and
- (d) the person responsible for the flight training unit's maintenance control system, or the person to whom this function has been assigned pursuant to subsection 406.36(3), has certified in writing that the incorporated manuals meet the requirements of this Section.

(3) The Minister shall approve a maintenance control manual and any amendments to the manual, where the personnel licensing standards are met.
(amended 2000/03/01)

Maintenance Arrangements

406.39 (1) No flight training unit that operates an aeroplane or a helicopter shall permit a person or organization to perform maintenance on the flight training unit's aircraft unless the person or organization has adequate facilities, equipment, spare parts and personnel available at the site where the maintenance is to be performed and

- (a) the person or organization holds an approved maintenance organization (AMO) certificate issued pursuant to section 573.02 that is rated in the category for the maintenance to be performed;
- (b) where the maintenance is to be performed outside Canada by a person or organization that does not hold an approved maintenance organization (AMO) certificate issued pursuant to section 573.02, the person or organization has been approved under the laws of a state that is party to an agreement with Canada that provides for recognition of the work performed; or
- (c) in cases other than those described in paragraphs (a) and (b), the performance of the maintenance by the person or organization has been approved by the Minister as being in conformity with these Regulations.

(2) A flight training unit that operates an aeroplane or a helicopter shall ensure that a maintenance arrangement made with a person or organization pursuant to subsection (1)

- (a) specifies the maintenance required and clearly defines the tasks to be performed; and

(b) is made in accordance with the procedures governing maintenance arrangements included in the maintenance control manual or is approved by the Minister as being in conformity with these Regulations.

(3) Where a flight training unit that operates an aeroplane or a helicopter makes a maintenance arrangement referred to in paragraph (1)(b), the Minister shall, in the following cases, authorize the arrangement by issuing a maintenance specification to indicate that the maintenance control procedures set out in the arrangement conform to the personnel licensing standards:

(a) the issuance of a maintenance specification is either required by the agreement or requested by the foreign state; or

(b) the maintenance is performed in a state that is not party to an agreement with Canada that provides for recognition of the work performed.

Technical Dispatch Procedures

406.40 A flight training unit that operates an aeroplane or a helicopter shall establish and comply with policies and procedures to ensure that an aircraft is not operated unless it is

(a) airworthy;

(b) appropriately equipped, configured and maintained for its intended use; and

(c) maintained in accordance with the flight training unit's maintenance control manual.

Defect Recording, Rectification and Control Procedures

(amended 2000/03/01)

406.41 A flight training unit that operates an aeroplane or a helicopter shall establish and comply with policies and procedures that meet the personnel licensing standards for

(a) recording aircraft defects, including defects that are detected during aircraft operation or during the performance of elementary work or servicing;

(b) identifying defects that recur and reporting those defects as recurring defects to maintenance personnel;

(c) ensuring that defects are rectified in accordance with the requirements of these Regulations; and

(d) subject to decisions 605.09 and 605.10, scheduling the rectification of defects whose repair has been deferred.

Service Difficulty Reporting

406.42 The holder of a flight training unit operator certificate who operates an aeroplane or a helicopter shall report to the Minister, in accordance with Division IX of Subpart 21 of Part V, any reportable service difficulty related to the aircraft that it operates.
(amended 2009/12/01)

Elementary Work

406.43 No flight training unit that operates an aeroplane or a helicopter shall authorize a person to perform, without supervision, a task that is elementary work set out in section 605.85 unless the person

(a) has satisfactorily completed training for the task under a training program required by section 406.45; and

(b) has previously performed that task under the direct supervision of the holder of an aircraft maintenance engineer (AME) licence or a training organization approved pursuant to Subpart 3.

Servicing

406.44 A flight training unit that operates an aeroplane or a helicopter shall ensure that each person who performs or requests the performance of servicing has satisfactorily completed training, under a training program required by section 406.45, for the servicing to be performed.

Training Program

406.45 A flight training unit that operates an aeroplane or a helicopter shall implement a training program to ensure that persons who are authorized to perform a function under this Division are trained in respect of the regulations, standards and flight training unit procedures applicable to that function, as specified in the personnel licensing standards.

Maintenance Personnel Records

406.46 (1) A flight training unit that operates an aeroplane or a helicopter shall establish, maintain and retain for at least two years after an entry is made a record of maintenance personnel that meets the personnel licensing standards.

(2) Where an authorization is given or training is completed, the flight training unit shall provide a copy of each record required by subsection (1) to the person to whom the record refers.

Quality Assurance Program

(amended 2005/05/31)

406.47 (1) The holder of an operator certificate issued in respect of a flight training unit that operates an aeroplane or a helicopter shall, in order to ensure that its maintenance control system and all of the included maintenance schedules continue to be effective and to comply with these Regulations, establish and maintain a quality assurance program that (amended 2005/05/31)

(a) is under the sole control of

(i) the person responsible for the maintenance control system appointed under paragraph 406.19(1)(a), or

(ii) the person to whom the management functions for the program have been assigned under subsection 406.36(2); and

(b) meets the requirements of section 426.47 of the personnel licensing standards.

(2) The person responsible for the maintenance control system shall ensure that records relating to the findings resulting from the quality assurance program are distributed to the appropriate manager for corrective action and follow-up in accordance with the policies and procedures specified in the maintenance control manual (MCM).

(amended 2005/05/31)

(3) The person responsible for the maintenance control system shall establish an audit system in respect of a quality assurance program that consists of the following:

(amended 2005/05/31)

(a) an initial audit within 12 months after the date on which the flight training unit operator certificate is issued;

(b) subsequent audits conducted at intervals set out in the MCM;

(c) a record of each occurrence of compliance or non-compliance with the MCM found during an audit referred to in paragraph (a) or (b);

(d) procedures for ensuring that each finding of an audit is communicated to them and, if management functions have been assigned to another person under subsection 406.36(2) or (3), to that person;

(e) follow-up procedures for ensuring that corrective actions are effective; and

(f) a system for recording the findings of initial and periodic audits, corrective actions and follow-ups.

(4) The records required under paragraph (3)(f) shall be retained for the greater of
(amended 2005/05/31)

(a) two audit cycles; and

(b) two years.

(5) If a flight training unit that operates an aeroplane or a helicopter is also the holder of an approved maintenance organization (AMO) certificate issued under section 573.02, the person responsible for the quality assurance program of the flight training unit under paragraph (1)(a) shall be the person responsible for the quality assurance program of the AMO.

(amended 2005/05/31)

(6) The duties related to the quality assurance program that involve specific tasks or activities within a flight training unit's activities shall be fulfilled by persons who are not responsible for carrying out those tasks or activities.

(amended 2005/05/31)

406.48 and 406.49 *Reserved*
(amended 2006/12/14)

DIVISION V - FLIGHT TRAINING OPERATIONS

Operational Control System
(amended 2006/12/14)

406.50 No flight training unit that conducts flight training in accordance with a flight training operations manual that has been approved by the Minister shall operate an aircraft unless the flight training unit has an operational control system that meets the personnel licensing standards and is under the control of its chief flight instructor.
(amended 2006/12/14)

Aircraft Operations Requirements

406.51 (1) A flight training unit that operates an aeroplane to conduct training for a private pilot licence, a commercial pilot licence or a flight instructor rating shall have access to at least one aeroplane that is certified under Part V for the spin manoeuvre.

(2) A flight training unit that operates a helicopter to conduct training for a pilot permit - recreational, a private pilot licence, a commercial pilot licence or a flight instructor rating shall have access to at least one helicopter that is configured for and capable of full-on autorotational landings.

Facilities at Base of Operations

406.52 A flight training unit shall have facilities at a base of operations that meet the personnel licensing standards.

Dispatch of Aircraft

406.53 No flight training unit that operates an aeroplane or a helicopter shall permit a person to conduct a take-off in an aircraft that is subject to the operational control of the flight training unit unless the aircraft has been maintained in accordance with a maintenance control system.

Aircraft Operating over Water

406.54 No flight training unit shall permit a person to operate a land aircraft over water, except when conducting a take-off or landing, beyond a point where the land aircraft could reach shore in the event of an engine failure.

Solo Cross-country Routes

406.55 No flight training unit that operates an aeroplane or a helicopter shall permit a person to conduct the solo cross-country flight required by Subpart 1 for the private pilot licence - aeroplane or the private pilot licence - helicopter unless the flight training unit

notifies the Minister in writing of the planned route of the flight originating from the main base or any satellite base.

Daily Flight Record

406.56 A flight training unit that operates an aeroplane, a helicopter or a glider shall, for the purpose of maintaining operational control, establish, maintain and retain for at least two years after an entry is made a daily flight record that meets the personnel licensing standards.

Journey Log Entries

406.57 A flight training unit that operates an aeroplane, a helicopter or a glider shall designate a person to make journey log entries in accordance with section 605.94.

Flight Training at a Satellite Base

406.58 (1) A flight training unit that conducts flight training at a satellite base shall

(a) assign a flight instructor, other than a Class 4 flight instructor, to be responsible for flight training operations at the satellite base; and

(b) ensure that a qualified flight instructor is on duty at that satellite base while a solo training flight is in progress.

(2) A Class 4 flight instructor shall not conduct flight training at a satellite base unless a qualified Class 1 or Class 2 flight instructor is on duty.

406.59 and 406.60 *Reserved*

DIVISION VI — MANUALS AND COURSE CERTIFICATES

(amended 2006/12/14)

Flight Training Operations Manual

(amended 2006/12/14)

406.61 (1) Every flight training unit that conducts an integrated course or operates a sub-base shall establish and maintain a flight training operations manual that includes the instructions and information necessary to enable the personnel concerned to perform their duties safely and that meets the personnel licensing standards.
(amended 2006/12/14)

(2) The flight training operations manual may be issued in separate parts corresponding to specific aspects of operations.
(amended 2006/12/14)

(3) Whenever the flight training operations manual no longer meets the personnel licensing standards, the flight training unit shall amend it to bring it into compliance with the standards.
(amended 2006/12/14)

(4) A flight training unit shall submit to the Minister its flight training operations manual and, if they relate to the information required by the personnel licensing standards, any separately issued parts and any subsequent amendments to them or to the manual.

(amended 2006/12/14)

(5) If the personnel licensing standards are met, the Minister shall approve the parts of a flight training operations manual that relate to the information required by the personnel licensing standards and any subsequent amendments to the parts.

(amended 2006/12/14)

(6) A flight training unit shall distribute its flight training operations manual, any separately issued parts and any subsequent amendments to the manual or parts in accordance with the personnel licensing standards.

(amended 2006/12/14)

(7) The chief flight instructor shall maintain a master list of the holders of the flight training operations manual and ensure that the manual is distributed in accordance with the list.

(amended 2006/12/14)

(8) The following operational personnel shall hold copies of the flight training operations manual and shall be responsible for its amendment:

(amended 2006/12/14)

(a) the chief flight instructor;

(b) the assistant chief flight instructor;

(c) the check instructor; and

(d) the person responsible for the maintenance control system or the approved maintenance organization.

(9) The chief flight instructor shall make manuals available to all other operational personnel who are involved in operational control, including flight instructors, students and, if applicable, flight dispatchers.

(amended 2006/12/14)

(10) Every person who has been provided with a copy of the appropriate parts of a flight training operations manual pursuant to subsections (7) and (8) shall keep it up-to-date by inserting in it the amendments provided and shall ensure that the appropriate parts are accessible when the person is performing assigned duties.

(amended 2006/12/14)

Training Manual

(amended 2006/12/14)

406.62 (1) Every flight training unit that conducts an integrated course shall establish and maintain a training manual that meets the personnel licensing standards.

(amended 2006/12/14)

(2) The training manual may be issued in separate parts corresponding to specific aspects of the integrated course.

(amended 2006/12/14)

(3) Whenever the training manual no longer meets the personnel licensing standards, the flight training unit shall amend it to bring it into compliance with the standards.

(amended 2006/12/14)

(4) A flight training unit shall submit to the Minister its training manual and, if they relate to the information required by the personnel licensing standards, any separately issued parts and any subsequent amendments to them or to the manual.

(amended 2006/12/14)

(5) If the personnel licensing standards are met, the Minister shall approve the parts of a training manual that relate to the information required by the personnel licensing standards and any subsequent amendments to the parts.

(amended 2006/12/14)

Certificate of Enrolment

(amended 2006/12/14)

406.63 (1) A flight training unit that conducts an integrated course shall provide to each trainee, at the start of the course, a certificate of enrolment that meets the personnel licensing standards.

(amended 2006/12/14)

(2) A flight training unit that conducts an integrated course shall maintain a current list of the trainees enrolled in each integrated course conducted by the flight training unit.

(amended 2006/12/14)

Course Completion Certificate

(amended 2006/12/14)

406.64 A flight training unit that conducts an integrated course shall provide to each trainee, on successful completion of the course, a course completion certificate that meets the personnel licensing standards.

(amended 2006/12/14)

406.65 to 406.70 *Reserved*

(amended 2006/12/14)

DIVISION VII — TRAINING

(amended 2006/12/14)

Operational Personnel Training Program

(amended 2006/12/14)

406.71 (1) For the purposes of this section, “competency check” means a certification by the chief flight instructor or an instructor delegated by the chief flight instructor that a flight

instructor conducting training under an integrated course has demonstrated in flight an ability to perform both normal and emergency manoeuvres appropriate to the most complex single-engined aeroplane to be used for the flight instruction.

(amended 2006/12/14)

(2) A flight training unit that conducts flight training in accordance with a flight training operations manual that has been approved by the Minister shall establish and maintain a ground and flight training program for operational personnel as follows:

(amended 2006/12/14)

(a) indoctrination training is required upon employment for all persons assigned to an operational control function, including chief flight instructors, assistant chief flight instructors, flight instructors and persons responsible for flight following;

(amended 2006/12/14)

(b) the training referred to in paragraph (a) shall ensure that persons involved in the control of flight operations are aware of their responsibilities, know reporting relationships and are competent to fulfil their assigned duties related to flight training operations;

(amended 2006/12/14)

(c) the training referred to in paragraph (a) shall include a review of the flight training operations manual and the training manual, as applicable;

(amended 2006/12/14)

(d) each flight instructor who conducts training in accordance with an integrated course shall, before receiving authorization to conduct the training, successfully complete the following exercises under the supervision of the chief flight instructor, assistant chief flight instructor or check instructor:

(amended 2006/12/14)

(i) the indoctrination training referred to in paragraph (a),

(ii) a review and a briefing on the contents of the flight training operations manual and the training manual, and

(iii) an initial competency check in each type of aircraft used in the integrated course in which the flight instructor conducts training; and

(e) each flight instructor who conducts training in accordance with an integrated course shall, every 12 months after the month in which the initial competency check was completed, successfully complete

(amended 2006/12/14)

(i) a recurrent competency check in one of the aircraft in which the flight instructor conducts training in accordance with an integrated course,

(ii) an in-flight monitoring of a training flight conducted by the flight instructor,

(iii) a flight test toward the issuance of a flight instructor rating, multi-engine class rating or instrument rating, or

- (iv) a pilot proficiency check in accordance with Part VI or VII, as applicable.

406.72 to 406.74 *Reserved*
(amended 2006/12/14)

DIVISION VIII — INTEGRATED COURSE
(amended 2006/12/14)

Requirements
(amended 2006/12/14)

406.75 An integrated course shall be conducted under the supervision of the chief flight instructor of a flight training unit that holds a flight training unit operator certificate and all the instructional stages shall be completed in one continuous course of training as arranged by that flight training unit in accordance with the personnel licensing standards.
(amended 2006/12/14)

Prerequisite
(amended 2006/12/14)

406.76 The flight training unit shall ensure that an applicant, before being admitted to an integrated course, has a secondary school diploma or equivalent in accordance with the personnel licensing standards.
(amended 2006/12/14)

Transfer
(amended 2006/12/14)

406.77 Any trainee wishing to transfer to another flight training unit during an integrated course shall apply to the other flight training unit for a formal assessment of the further hours of training required at that flight training unit. The assessment shall be recorded in the applicant's training record.
(amended 2006/12/14)

406.78 and 406.79 *Reserved*
(amended 2006/12/14)



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CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

SUBPART 8 – CONDUCT OF FLIGHT TESTS

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2011-2	2012/02/19	2012/03/06	

* All persons making use of this consolidation are reminded that it is not an "official" copy. The original regulations and amendments thereto, as published in Part II of the *Canada Gazette*, should be consulted for the purpose of officially interpreting and applying the regulations.

[illegible]

408 – CONDUCT OF FLIGHT TESTS

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PART IV – PERSONNEL LICENSING AND TRAINING

SUBPART 8 — CONDUCT OF FLIGHT TESTS

(amended 2012/02/19)

Interpretation

408.01 (1) Any reference in this Subpart to the flight testing standards is a reference to Standard 428 — *Personnel Licensing and Training Standards respecting the Conduct of Flight Tests*.

(2) The following definitions apply in this Subpart.

“air flight test item” means a flight test item performed using an aeroplane, helicopter or synthetic flight training equipment, including the pre-flight inspection, start-up, run-up, taxiing and emergency procedures. (*exercice en vol*)

“examiner” means a person designated by the Minister to conduct flight tests for the issuance or renewal of flight crew permits, licences or ratings for an aeroplane or helicopter. (*examineur*)

“ground flight test item” means a flight test item performed prior to the pre-flight inspection of the aeroplane or helicopter. (*exercice au sol*)

Application

408.02 This Subpart applies in respect of the conduct, using an aeroplane, helicopter or synthetic flight training equipment, of flight tests required for the issuance or renewal of a flight crew permit, licence or rating.

[**408.03** to **408.10** reserved]

Record of Flight Test

408.11 The Minister shall maintain a record of each flight test in accordance with this Subpart and the flight testing standards. The record shall contain the following information:

- (a) an assessment of the results of each flight test item;
- (b) the overall results; and
- (c) whether the candidate passed or failed the flight test.

Prerequisite for Flight Test

408.12 Before conducting a flight test or partial re-test, the examiner shall ensure that they have received the documentation specified in section 1 of Schedules 1 to 18 to the flight testing standards, dated, if applicable, as specified in that section.

Aircraft and Equipment Required for a Flight Test

408.13 The examiner shall ensure that the candidate who takes a flight test provides the aircraft and equipment described in section 2 of Schedules 1 to 18 to the flight testing standards.

Flight Test

408.14 (1) In the case of a flight test conducted in accordance with Schedules 1 to 8 to the flight testing standards, a candidate successfully completes the flight test if

- (a) the candidate completes all of the items set out in section 5 of those schedules; and
- (b) the candidate receives at least the passing grade for the permit, licence or rating specified in the following table and does not fail any flight test item for any of the reasons set out in subsection 408.18(1).

Table

Permit, Licence or Rating	Passing Grade
Rating for Passenger-Carrying Ultra-Light Aeroplane	50%
Permit for Recreational Pilot — Aeroplane	50%
Licence for Private Pilot — Aeroplane	50%
Licence for Commercial Pilot — Aeroplane	70%
Licence for Private Pilot — Helicopter	50%
Licence for Commercial Pilot — Helicopter	70%
Multi-Engine Class Rating — Aeroplane	70%
Instrument Rating	60%

(2) In the case of a flight test conducted in accordance with Schedules 9 to 18 to the flight testing standards, a candidate successfully completes the flight test if

- (a) the candidate completes all of the items set out in section 5 of those schedules; and
- (b) the candidate successfully completes each item of the flight test and does not fail the test for any of the reasons set out in section 408.19.

Conduct of a Flight Test

408.15 (1) The examiner shall conduct a flight test in accordance with section 3 of Schedules 1 to 18 to the flight testing standards.

(2) The examiner shall evaluate the performance of a candidate in accordance with section 4 of Schedules 1 to 18 to the flight testing standards by verifying, during the flight test, the candidate's knowledge and skills when performing the items set out in section 4 of those schedules, taking into account the general tolerances specified in that section. The examiner shall record the results on the form entitled *Flight Test Report* in the manner specified by the Minister.

(3) In the case of a flight test conducted in accordance with Schedules 1 to 8 to the flight testing standards, the examiner shall not take part in the pilotage of the aeroplane or helicopter during the flight test except in the cases set out in paragraph 3(b) of those schedules.

408.16 In the case of a flight test conducted in accordance with Schedules 1 to 8 to the flight testing standards, the examiner may have the candidate repeat an item if

- (a) the item is discontinued for safety reasons;
- (b) the examiner intervened on the flight controls to avoid a collision with another aircraft that the candidate could not see;
- (c) the candidate understood the specific nature of the item but did not understand the examiner's request to perform it; or
- (d) the examiner was distracted to the point of not being able to adequately observe the candidate's performance of the item.

Incomplete Flight Test

408.17 If the candidate has successfully completed some of the items during a flight test but the flight test cannot be completed for reasons beyond the candidate's control, the subsequent flight test shall meet the following requirements:

- (a) only the items that the candidate could not perform during the initial flight test shall be performed;
- (b) the candidate shall take the subsequent flight test within

- (i) 60 days after the date of the incomplete flight test, in the case of a flight test described in Schedule 1 to the flight testing standards, or
 - (ii) 30 days after the date of the incomplete flight test, in the case of a flight test described in Schedules 2 to 18 to the flight testing standards; and
- (c) in the case of a flight test conducted in accordance with Schedule 8 to the flight testing standards, the subsequent flight test shall be conducted using an aircraft in the same instrument rating group as the aircraft used in the initial flight test.

***Failure and Re-test — Schedules 1 to 8 to Flight
Testing Standards***

408.18 (1) In the case of a flight test conducted in accordance with Schedules 1 to 8 to the flight testing standards, a candidate fails the flight test if

- (a) the candidate's performance of an item includes deviations that are repeated or that the candidate either does not recognize or does not correct in a timely manner;
- (b) the candidate's handling of the aircraft is rough or includes uncorrected or excessive deviations from specified tolerances;
- (c) the candidate, as a result of a pilot error or faulty handling of the aircraft, exceeds by more than double the deviation tolerances specified in the table to section 4 of Schedules 1 to 8 of those standards, even if a correction is made;
- (d) the candidate does not demonstrate the level of technical proficiency or knowledge necessary to carry out the functions of a holder of a licence, permit or rating;
- (e) the candidate has lapses in situational awareness that are not identified or corrected;
- (f) the candidate's flight management skills are ineffective; or
- (g) the safety of the flight is compromised.

(2) A candidate who fails not more than two air flight test items described in Schedules 1 to 7 to the flight testing standards may take a re-test of each failed item within:

- (a) 60 days after the date of the failed test, in the case of a flight test described in Schedule 1 to those standards; or
- (b) 30 days after the date of the failed test, in the case of a flight test described in Schedules 2 to 7 to those standards.

(3) A candidate who fails not more than one air flight test item described in Schedule 8 to the flight testing standards may take a re-test of the failed item within 30 days after the date of the failed test.

(4) A candidate must take a complete re-test for a licence, permit or rating referred to in Schedules 1 to 8 to the flight testing standards if

- (a) during a flight test, the candidate displays unsafe airmanship or dangerous flying resulting in the flight test being assessed as a failure;
- (b) the candidate repeatedly fails to use appropriate and effective visual scanning techniques to ensure that the area is cleared before or while performing an item that involves visual manoeuvres;
- (c) during a complete flight test, the candidate fails any ground flight test item;
- (d) during a complete flight test, the candidate fails more than two air flight test items in the case of a flight test described in Schedules 1 to 7 to the flight testing standards or more than one air flight test item in the case of a flight test described in Schedule 8 to those standards;
- (e) the candidate fails an item during a partial re-test; or
- (f) the candidate does not complete a partial re-test within a period specified in subsection (2).

***Failure of a Flight Test — Schedules 9 to 18 to
Flight Testing Standards***

408.19 In the case of a flight test conducted in accordance with Schedules 9 to 18 to the flight testing standards, a candidate fails the flight test if

- (a) the candidate performs an air flight test item using unsafe airmanship or completes the item with major deviations from the level of competency required for the issuance of a commercial pilot licence — aeroplane or a commercial pilot licence — helicopter;
- (b) the candidate fails to use appropriate and effective visual scanning techniques to ensure that the area is cleared before or while performing an item that involves visual manoeuvres;
- (c) the candidate acts or fails to act in such a manner that the examiner is required to take corrective action to maintain safe flight;
- (d) the candidate instructs, on the ground or in the air, in a manner that the examiner determines would result in a lack of understanding or in a misunderstanding that could lead to a dangerous flight situation;
- (e) the candidate fails to accomplish the aim of one or more of the items of the flight test;
- (f) the candidate does not demonstrate the level of technical proficiency or knowledge necessary to carry out the functions of a holder of a flight instructor rating; or
- (g) the candidate displays an ineffective instructional technique.



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CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 421 - FLIGHT CREW PERMITS, LICENCES AND RATINGS

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STANDARD 421 - FLIGHT CREW PERMITS, LICENCES AND RATINGS

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Foreword

The Personnel Licensing and Training Standards Respecting Flight Crew Permits, Licences and Ratings outline the basic specifications that apply to the issuance of flight crew permits, licences and ratings and to the holders of flight crew permits, licences and ratings in compliance with Subpart 401 in the *Canadian Aviation Regulations*.

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 421 - FLIGHT CREW PERMITS, LICENCES AND RATINGS

DIVISION I - GENERAL

421.05 Recency Requirements

(1) In order to comply with the requirements of 401.05(1)(b)

(a) the flight review shall include all items normally covered during the flight test for the issue of that permit or licence,

(b) the flight instructor completing the flight review shall certify in the holder's personal log that the skill requirement has been met, and

(c) the holder shall successfully complete the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Air Regulations (PSTAR)

(d) The certification in (b) above shall read:

“This is to certify that the skill requirement for _____ (permit or licence) has been met” and shall include the date and the name, signature and licence number of the instructor.

(2) In order to comply with the requirements of 401.05(2)(a), any of the following are considered acceptable as recurrent training programs:

(a) completion of a flight review conducted by the holder of a flight instructor rating in the same category, shall include all items normally covered during the flight test for the issue of that permit or licence;

(b) attendance at a safety seminar conducted by Transport Canada Aviation;

(c) successful completion of a recurrent training program designed to update pilot knowledge, which could include subject areas such as human factors, meteorology, flight planning and navigation, and aviation regulations, rules and procedures that has been approved by the Minister as being satisfactory for those purposes;
(amended 2005/12/01)

(d) completion of the self-paced study program produced annually in the *Transport Canada Aviation Safety Newsletter*, which is designed to update pilot knowledge in the subjects specified in (c) above. The completed copy shall be the most current published by date and shall be retained by the licence holder;

(e) completion of a training program or Pilot Proficiency Check as required by Parts IV, VI or VII of the *Canadian Aviation Regulations*;

(f) completion of the skill requirements for issue or renewal of a pilot permit, licence or rating, including night rating, VFR over-the-top rating, instrument rating, multi-engine class rating, flight instructor rating, landplane or seaplane rating; or
(amended 2000/09/01)

(g) completion of the written examination(s) for a permit, licence or rating.

421.06 *Issue and Endorsement of Flight Crew Permits, Licences and Ratings*

(1) Proof of Citizenship

The following documents are acceptable as proof of citizenship:

(a) a citizenship certificate;

(b) a *Certificate of Registration of Birth Abroad* issued by the Department of Citizenship and Immigration;

(c) a birth certificate or baptismal certificate issued in Canada or in a state whose citizens do not require a passport to travel in Canada. A copy certified by the issuing state or duly notarized is acceptable;

(d) a passport. If no expiry date is indicated on the passport, an attestation that the passport is valid is required from the applicant's state of citizenship;

(e) an aviation personnel licence showing the citizenship of the holder and issued by the state of which the applicant is a citizen; and

(f) a Canadian Immigration Record and Visa, Form IMM1000, issued to a landed immigrant by the Department of Citizenship and Immigration.

(2) Proof of Age

The following documents are acceptable proof of the age of an applicant for a personnel permit, licence or rating:

(a) a citizenship certificate;

(b) a *Certificate of Registration of Birth Abroad* issued by the Department of Citizenship and Immigration;

(c) a birth certificate or baptismal certificate, certified by the issuing authority, or a duly notarized copy. If the date of birth is not shown on a baptismal certificate it shall be supported by a statutory declaration in which the applicant declares the date of birth;

(d) a passport;

(e) an aviation personnel permit or licence, showing the date of birth, issued by the state of which the applicant is a citizen;

(f) a Canadian Immigration Record and Visa, Form IMM1000, issued to a landed immigrant by the Department of Citizenship and Immigration.

(3) Photograph

(amended 2008/04/17)

A photograph submitted by an applicant for a flight crew permit or licence shall meet the following requirements:

(amended 2008/04/17)

(a) meet the specifications of a passport photograph pursuant to Passport Canada;

(amended 2008/04/17)

(b) taken within 12 months preceding the application;

(amended 2008/04/17)

(c) provide on the back of the photograph, the name of the applicant; and

(amended 2008/04/17)

(d) provide on the back of the photograph, the name, signature and declaration from a person who verifies that the photograph is a true likeness of the applicant, which person can be one of the following:

(amended 2008/04/17)

(i) a person who has a delegation of authority issued by the Minister of Transport to perform functions in support of civil aviation,

(amended 2008/04/17)

(ii) a Transport Canada Civil Aviation employee who has been assigned these duties by a manager, or

(amended 2008/04/17)

(iii) a person who is considered to be an eligible guarantor pursuant to Passport Canada.

(amended 2008/04/17)

Information Note: For information concerning the specifications of a passport photograph or eligible guarantor pursuant to Passport Canada, you may visit the Passport Canada web site at: <http://www.pptc.gc.ca/>.

(amended 2008/04/17)

(4) Language Proficiency Scale

(amended 2008/04/17)

LANGUAGE PROFICIENCY SCALE
EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS
(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTION
Expert Level describes proficiency more advanced than the minimum required standard	Pronunciation, stress, rhythm, and intonation infrequently are influenced by the first language or regional variation, but almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.

LANGUAGE PROFICIENCY SCALE
EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS
(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTION
Operational Level describes the minimum proficiency acceptable for radiotelephony communication	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation, to the extent that they sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

LANGUAGE PROFICIENCY SCALE
EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS
(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTION
Below Operational Level describes a level of proficiency below the level required	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation, to the extent that they frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are limited and the word choice often inappropriate. Often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic of situational complication or an unexpected turn of events.	Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.

Information Note: *Language proficiency in English or French will be annotated on the licence, however, the level of proficiency will not be indicated.*
(amended 2008/04/17)

421.07 *Validation of Foreign Licences*

(1) Issue of Foreign Licence Validation Certificate

(a) A Foreign Licence Validation Certificate shall be issued to an applicant who provides the following:

(i) a foreign licence valid under the laws of a contracting state and valid for the privileges requested; and

(ii) a letter requesting issue of the Foreign Licence Validation Certificate and specifying the purpose for which the foreign licence is to be validated.

(b) The Foreign Licence Validation Certificate shall normally be issued for a period of one year from the date of issue. A shorter period may be granted upon the applicant's request.
(amended 1998/03/23)

(c) If the medical validity period of the licence issued by a contracting state other than Canada is longer than the ICAO standard, the validation shall be limited to Canadian airspace.
(amended 2003/03/01)

(2) Purposes For Which Foreign Licence Validation Certificates May Be Issued

(a) for the holder to undergo a flight test;

(b) for private recreational flying;

(c) for ferry of an aircraft registered in Canada to or from a foreign country;

(d) for the holder to give type rating training on an aircraft registered in Canada to the registered owner, or to Canadian flight crew employed by the registered owner;
(amended 2003/03/01)

(e) for the holder to receive training in a Canadian registered aircraft;
(amended 1998/03/23)

(f) for operation of aircraft registered in a foreign state under the operating certificate of a Canadian carrier provided that the privileges are limited to the type of aircraft being operated;
(amended 1998/03/23)

(g) for operation of Canadian aircraft on Canadian commercial air services in urgent circumstances; such as fire suppression operations, emergency agricultural and forestry aerial application, airlift in relief of domestic natural disasters, and search and rescue operations;
(amended 1998/03/23)

(h) for commercial air services operated entirely within a foreign country where pilots holding a licence from that country may have their licence validated for operation of Canadian registered aircraft in that country;

(amended 1998/03/23)

(i) for the operation of aircraft registered in Canada on lease to foreign carriers;

(amended 1998/03/23)

(j) for reasons other than those mentioned above where approval may be given if, in the opinion of the Minister, it is in the public interest and not likely to affect aviation safety.

(amended 1998/03/23)

421.08 *Personal Logs*

(amended 1999/03/01)

(1) Loss of Personal Log

An applicant for a flight crew permit, licence or rating who is unable to provide proof of flying experience by means of a personal log, due to extenuating circumstances such as the loss of records through fire, theft or other similar cause, may submit an Affidavit or Statutory Declaration sworn before a Commissioner of Oaths, to the Minister.

(a) The affidavit or declaration shall contain a breakdown of flying experience claimed, appropriate to the permit, licence or rating applied for and shall include the following details:

(i) hours flown by day and by night on single and multi-engine aircraft as pilot-in-command, co-pilot and dual;

(ii) hours flown cross-country by day and by night as pilot-in-command, co-pilot and dual;

(iii) hours of instrument flight time and approved instrument ground trainer time;

(iv) aircraft types and registrations; and

(v) where applicable, names of employers and dates of employment.

(b) The affidavit or declaration shall contain an explanation of the circumstances which prevented the submission of a personal log and a statement declaring that all attempts to reproduce and certify entries in a personal log have been unsuccessful.

(c) Wherever practicable, the applicant shall obtain corroborating evidence, such as copies of journey log book entries.

(d) Affidavits or Statutory Declarations submitted without corroborating evidence shall not be accepted by the Minister as evidence of flying experience beyond that required for the issue of a Commercial Pilot Licence.

(e) The applicant shall, in addition, successfully complete all examinations and tests required for the permit, licence or rating applied for.

(2) Lack of Personal Log - Foreign Licence Holders

Holders of pilot licences issued by a Contracting State who are unable to provide a certified personal log may be credited by the Minister with the minimum flying experience specified in ICAO Annex 1 for the foreign licence held.

421.10 *Crediting of Flight Time Acquired by a Co-pilot*

The holder of a pilot licence may be credited not more than 50% of co-pilot flight time towards the total flight time required for the issuance of a higher class of pilot licence.
(amended 1998/12/01)

421.11 *Airline Transport Licence Training (Pilot-in-command Under Supervision)*
(amended 1998/12/01)

(1) All air operators using large aeroplanes may institute programs of supervision to allow co-pilots to credit flight time as pilot-in-command time.

(2) Air operators using small aeroplanes and Air operators using helicopters may institute a program of supervision referred to in subsection (1) provided that they have received authorization to do so from the Minister based on the operator's ability to institute such a program in a safe and effective manner.

(3) The training program shall be conducted in accordance with the following:

(a) the operator shall ensure that the supervisory pilots are briefed on these procedures by the Minister; and

(b) the pilot-in-command under supervision flight time may be acquired in the co-pilot's seat provided the pilot-in-command functions described in clauses (i) and (ii) can be performed from the seat. Otherwise, the pilot-in-command under supervision flight time shall include a minimum of ten hours in the pilot-in-command seat. The pilot-in-command under supervision flight time shall include:
(amended 1998/12/01)

(i) with the exception of taxiing, at least all the flight functions of a pilot-in-command including flight planning, takeoff, landing, en route flying and approach; and

(ii) a minimum of one takeoff and one landing for each ten hours of flight time.

(4) The conditions for crediting an applicant's flight time are as follows:
(amended 1998/12/01)

(a) An applicant for an Airline Transport Pilot Licence – Aeroplane shall be given credit for up to 100 hours of pilot-in-command flight time under supervision, provided the applicant:

- (i) holds a Commercial Pilot Licence — Aeroplane with a multi-engine rating and the aeroplane type rating in which the flight time is acquired;
- (ii) has a Group I instrument rating; and
- (iii) has accumulated a minimum of 150 hours pilot-in-command flight time in aeroplanes.

(b) An applicant for an Airline Transport Pilot Licence - Helicopter shall be given credit for up to 150 hours of pilot-in-command flight time under supervision, provided the applicant:

- (i) holds a Commercial Pilot Licence - Helicopter with the helicopter type rating in which the flight time is acquired; and
- (ii) has accumulated a minimum of 100 hours pilot-in-command flight time in helicopters.

(5) An applicant shall be credited flight time as follows:
(amended 1998/12/01)

(a) not more than 50% of the pilot-in-command under supervision flight time for a total of up to 100 hours in the case of an Airline Transport Pilot Licence – Aeroplane and up to 150 hours in the case of an Airline Transport Pilot Licence - Helicopter may be credited toward pilot-in-command experience requirements; and

(b) Pilot-in-command under supervision flight time, provided such flight time is acquired within the 12 months preceding the date of application for the licence for which the flight time is to be credited.

(6) When an application for an Airline Transport Pilot Licence is based in part on pilot-in-command under supervision flight time, the applicant shall:
(amended 1998/12/01)

(a) submit a personal log or other reliable record that contains a summary of the pilot-in-command under supervision flight time and the number of takeoffs and landings; and

(b) enter a notation on the application form showing the portion of pilot-in-command flight time that was done under supervision.

DIVISION II - TESTING

421.13 *Examination Prerequisites*

(1) For admission to a written examination required for the issue of a permit, licence or rating an applicant shall have met the medical standards for the issue of the permit, licence or rating and shall produce proof of medical fitness in one of the following forms:

- (a) a Medical Certificate in the appropriate medical category;
- (b) a Medical Assessment Letter (Form 26-0417) in the appropriate medical category;
- (c) in the case of a Student Pilot Permit — Aeroplane, Pilot Permit — Ultra-light Aeroplane or Pilot Licence — Glider, a Civil Aviation Medical Declaration (Form 26-0297);
- (d) a temporary Medical Certificate in the appropriate medical category; or
- (e) a Medical Examination Report assessed to the appropriate medical category by the Regional Aviation Medical Officer.

(2) For admission to a written examination, proof of identification shall be required in the form of a permit, licence or other official document bearing the signature and photograph of the candidate.

(amended 2005/12/01)

(3) To be eligible to write the examination required for the issue of a permit, licence or rating, the candidate shall produce the following letter of recommendation dated within 60 days prior to the date of the written examination:

(amended 2005/12/01)

(a) an applicant for a Pilot Permit - Gyroplane, Private Pilot Licence, or Commercial Pilot Licence shall provide a letter of recommendation from the Flight Training Unit or from the flight instructor who is responsible for the training of the applicant, stating that the applicant has completed the ground school instruction, and has reached a sufficient level of knowledge to write the examination;

(amended 2000/09/01)

(b) an applicant for a Class 4 Instructor Rating shall provide a letter of recommendation from the applicant's ground training instructor stating that the applicant has completed the ground school instruction, and has reached a sufficient level of knowledge to write the examination;

(amended 1998/03/23)

(c) in the case of a DND applicant, proof of having qualified to pilot wings standard;

(d) in the case of an applicant holding a licence issued by a Contracting State, the recommendation shall not be required provided the applicant is applying for the equivalent or lower Canadian licence;
(amended 2005/12/01)

(e) a letter of recommendation required under this subsection may only be used once.
(amended 2003/03/01)

(4) To be eligible to write the examination required for the issue of a permit, licence or rating, the candidate shall provide proof that the experience and training requirements set out below have been met:
(amended 1998/03/23)

(a) an applicant for a Pilot Permit — Gyroplane, Pilot Permit — Recreational — Aeroplane, or a Private Pilot Licence shall have completed 10 hours flight time in the same category of aircraft, or hold a valid Pilot Permit — Ultra-light Aeroplane;
(amended 1998/03/23)

(b) an applicant for a Class 4 Instructor Rating shall have completed fifty percent (50%) of the flight training requirement, and all ground school requirements;

(c) an applicant for a higher class of Instructor Rating shall have completed fifty percent (50%) of the flight instructor experience requirement;

(d) an applicant for an instrument rating shall have completed a minimum of 20 hours of instrument flight or ground time;
(amended 1998/03/23)

(e) an applicant for an Airline Transport Pilot Licence (Aeroplane) shall, when enrolled in an approved integrated ATP(A) course, have completed the ground school requirements and the Group 1 instrument rating flight test; and
(amended 2005/12/01)

(f) all other applicants shall have a minimum of fifty percent (50%) of the total flight experience for the issue of the permit, licence, or rating.
(amended 2005/12/01)

421.14 *Flight Test Prerequisites*

(1) For admission to the flight test for a permit, licence or rating, the applicant shall have met the medical standards and hold a valid medical certificate appropriate to the permit, licence or rating for which application is made.
(amended 2006/12/14)

(2) For admission to a flight test, proof of identification shall be required in the form of a permit, licence or other official document bearing the signature and photograph of the candidate.
(amended 2005/12/01)

(3) Except as stated in paragraphs (c) and (d) below, for admission to a flight test required for the issue of a permit, licence or rating, the candidate shall produce a recommendation dated within 30 days prior to the date of the flight test, as follows:
(amended 2005/12/01)

(a) in the case of an applicant for a **Passenger Carrying Rating – Ultra-light Aeroplane**, Pilot Permit - Gyroplane, Pilot Permit — Recreational — Aeroplane or Private Pilot Licence, a letter of recommendation from a qualified flight instructor certifying that the applicant meets the competency standard for issue of the **Passenger Carrying Rating – Ultra-light Aeroplane**, Pilot Permit - Gyroplane, Pilot Permit — Recreational — Aeroplane or Private Pilot Licence;
(amended 2012/02/19)

(b) in the case of an applicant for a Commercial Pilot Licence, who is not enrolled in an approved integrated course, proof of having successfully completed the required written examination, and a letter from a flight instructor certifying that the applicant has satisfactory knowledge of the subject area or areas in which a deficiency was indicated by the feedback letter issued by the Flight Training and Aviation Examination (FTAE) computer system and meets the competency standard for issuance of the Commercial Pilot Licence;
(amended 2006/12/14)

(c) Canadian Forces applicants who are qualified to pilot wings standard shall not be required to submit the letter referred to in paragraphs (a) and (b);
(amended 2006/12/14)

(d) holders of valid Private and Commercial Pilot Licences issued by a contracting state are not required to have the letter referred to in paragraphs (a) and (b), provided that the flight test is for the purpose of obtaining the equivalent Canadian licence;
(amended 2006/12/14)

(e) a letter of recommendation required under this subsection may only be used once.
(amended 2005/12/01)

(4) To be eligible to attempt a flight test required for the issue of a permit, licence or rating:

(a) an applicant for a Pilot Permit - Gyroplane or a Private Pilot Licence shall have completed a minimum of 35 hours **of the total flying experience required for that permit or licence**;
(amended 2012/02/19)

(b) an applicant for a **Passenger Carrying Rating – Ultra-light Aeroplane** or Pilot Permit - Recreational — Aeroplane shall have **met all of the experience requirements required for the rating or permit**;
(amended 2012/02/19)

(c) an applicant for a permit or licence, other than a Pilot Permit — Gyroplane, Pilot Permit — Recreational — Aeroplane or Private Pilot Licence, shall have completed a minimum of 75% of the total flying experience required for that permit or licence;
(amended 2006/12/14)

(d) **except as specified in paragraph (e) below**, an applicant for an instrument or instructor rating flight test shall have met all the applicable knowledge and experience requirements set out in Division XIV, Division XVIII or Division XIX of Subpart 401 for the particular rating applied for prior to the flight test;
(amended 2012/02/19)

(e) an applicant for a Flight Instructor Rating – Ultra-light Aeroplane, shall have completed a minimum of 25 hours of the total flying experience required for the rating;
(amended 2012/02/19)

421.15 *Reserved*
(amended 2012/02/19)

421.16 *Failure of a Flight Test*

(1) Where an applicant has failed a flight test, the applicant shall be provided with a copy of his/her flight test report and informed by the person conducting the flight test of the conditions to be met prior to the next attempt of the flight test, as set out in the DFTE Standards.

(2) Where an applicant has failed a flight test, prior to attempting a re-test the applicant shall obtain a written recommendation or certification from a person authorized in Division XVIII, Division XIX, Division XX, Division XXI or XXII of Subpart 401, as applicable, to recommend or certify the applicant in respect of the permit, licence or rating applied for, stating that the applicant is considered competent to undertake a flight test.

421.17 *Failure of a Flight Test for a Rating Renewal*

(1) The Flight Test Requirements to determine whether an applicant passes, meets a lower class of that rating or fails the renewal flight test for the rating are found in the applicable Flight Test Standards and Guides.

(2) When the holder of a currently valid rating fails any exercise during a flight test for a rating, the examiner shall draw a line through the rating on the licence and add the following notation:

“_____ (name of rating) Rating, suspended”

followed by the examiner’s signature and the date.

(3) The holder of a flight instructor rating attempting a re-test after a flight test in which any exercise has been assessed Fail, shall provide a written recommendation from a flight instructor authorized in Subpart 401 to recommend for the flight instructor rating applied for, stating that the applicant is considered competent to undertake a flight test.

421.18 *Examiner's Endorsement of Personal Log - Gliders and Balloons*

(1) Gliders

The endorsement of personal log shall include the method of launch and the date and the name, signature and licence number of the examiner.

(2) Balloons

The endorsement of personal log shall include the method of inflation (gas or hot air) and the date and the name, signature and licence number of the examiner.

DIVISION III - STUDENT PILOT PERMITS

421.19 *Student Pilot Permit - Requirements*

(1) The Student Pilot Permit is issued in the following categories:

gyroplane, ultra-light aeroplane, glider, balloon, aeroplane and helicopter.

(2) Requirements for Issue of a Student Pilot Permit

An applicant for a Student Pilot Permit shall meet the following requirements:

(a) Citizenship

Confirmation of citizenship shall be provided in accordance with subsection 421.06(1).

(b) Age

(i) Confirmation of age shall be provided in accordance with subsection 421.06(2).

(ii) An applicant shall be a minimum of fourteen years of age for all aircraft categories of permits.

(c) Medical Fitness

(amended 2007/12/30)

(i) An applicant for a Student Pilot Permit - Gyroplane, Balloon, or Helicopter category shall be in possession of one of the following:

(A) a Medical Assessment Letter (Form 26-0417), Category 1 or 3; or

(B) a Medical Certificate (Form 26-0055), Category 1 or 3.

(ii) An applicant for a Student Pilot Permit — Aeroplane category shall be in possession of one of the following:
(amended 2003/03/01)

(A) a Civil Aviation Medical Declaration (Form 26-0297) with Part B completed by the applicant and Part C completed by a physician licensed to practice in Canada,
(amended 2003/03/01)

(B) a Medical Certificate (Form 26-0055), Category 1, 3 or 4, or
(amended 2003/03/01)

(C) a Medical Assessment Letter (Form 26-0417), Category 1, 3 or 4.
(amended 2003/03/01)

(iii) An applicant for a Student Pilot Permit - Ultra-Light Aeroplane, or a Student Pilot Permit - Glider shall be in possession of one of the following:
(amended 2003/03/01)

(A) a Civil Aviation Medical Declaration (Form 26-0297) with Part B completed by the applicant,
(amended 2003/03/01)

(B) a Medical Certificate (Form 26-0055), Category 1, 3 or 4, or
(amended 1998/03/23)

(C) a Medical Assessment Letter (Form 26-0417), Category 1, 3 or 4.
(amended 1998/03/23)

(d) Knowledge

An applicant for a Student Pilot Permit shall meet the knowledge requirement as follows:

(i) Ultra-light Aeroplane

(A) Provide certification from the holder of a flight instructor rating - ultra-light aeroplane or a flight instructor rating — aeroplane that the applicant has obtained a minimum of 90% in a written examination on the following subjects:
(amended 2005/12/01)

(I) *Canadian Aviation Regulations*,

(II) Air Traffic Control Clearances and Instructions including Air Traffic Rules and Procedures,

(III) Air Traffic Control procedures as they apply to the control of VFR traffic including Information Circulars and *NOTAM*,

(IV) Air Traffic Control procedures at uncontrolled airports and aerodromes,

(V) Special VFR Regulations , including meteorological phenomena as applicable,

(VI) Aeronautical Information Circulars and A.I.P. Canada (ICAO) Supplements as published by the Air Navigation services provider,

(VII) basic aerodynamics applicable to the type of ultra-light being used for the training,

(VIII) emergency procedures including stall recognition and recovery procedures, and

(IX) Human Factors, including pilot decision-making process.

(B) The flight instructor administering the examination shall review with the applicant all areas of knowledge for which the applicant has demonstrated errors and all errors shall be corrected to 100%.

(amended 2005/12/01)

(ii) Glider

Provide a statement of assurance from the holder of a flight instructor rating-glider stating that the applicant has passed an examination on the following subjects:

(A) *Canadian Aviation Regulations*;

(B) Air Traffic Control Clearances and Instructions;

(C) Air Traffic Control procedures as they apply to the control of VFR traffic;

(D) Air Traffic Control procedures at uncontrolled airports and aerodromes;

(E) Special VFR Regulations; and

(F) Information Circulars and A.I.P. Canada Supplements.

(iii) Other categories - Flight Training Units

Provide certification from the Flight Training Unit that the applicant has obtained a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Air Regulations (PSTAR) on the subjects specified in subparagraph (ii) above. The PSTAR examination shall be corrected to 100% by the FTU flight or ground instructor who will ensure that the applicant reviews all weak knowledge areas.

(iv) Other categories - Transport Canada Facility

Obtain a minimum of 90% in the written examination PSTAR completed at a Transport Canada facility. The PSTAR examination shall be corrected to 100% by a computer feedback letter keyed to the study and reference guide.

(e) Experience and Skill

Once the Citizenship, Age, Medical, Fitness and Knowledge requirements have been met and evidence thereof presented to an Authorized Person, a Student Pilot Permit in the category applied for shall be issued. The instructor shall be responsible for ensuring that the applicant has reached a satisfactory standard of experience and skill to complete solo flight before authorizing the first solo flight.

(amended 1998/03/23)

(3) Issue of Student Pilot Permit

(a) When the requirements have been met a Student Pilot Permit in the category applied for shall be issued by a person who has been delegated the authority to issue a Student Pilot Permit.

(b) An applicant completing training in two different categories of aircraft (e.g. aeroplane, glider, ultra-light aeroplane, etc.) at the same time shall be issued a second Student Pilot Permit provided the Medical Certificate is valid for the additional category of permit.

DIVISION IV - PILOT PERMITS**421.20 Gyroplane - Requirements****(1) Age**

An applicant shall be a minimum of seventeen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 3 Medical Certificate valid for a Pilot Permit - Gyroplane.

(b) The permit is maintained by a valid Category 1 or 3 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) completed a minimum of 40 hours gyroplane pilot ground school instruction on the following subjects:

- (i) *Canadian Aviation Regulations*,
- (ii) Aerodynamics and Theory of Flight,
- (iii) Meteorology,
- (iv) Airframes, Engines and Systems,
- (v) Flight Instruments,

- (vi) Radio and Electronic Theory,
- (vii) Navigation,
- (viii) Flight Operations,
- (ix) Licensing Requirements, and
- (x) Human Factors, including pilot decision-making; and

(b) obtained a minimum of 60% on the written examination Pilot Permit - Gyroplane (GYROP).

(4) Experience

(a) An applicant shall have completed a minimum of 45 hours pilot flight training in gyroplanes under the direction and supervision of the holder of a flight instructor rating-gyroplane.

(b) The flight training shall include a minimum of:

(i) Two or More Seats

(A) 12 hours dual instruction flight time including 2 hours cross-country flight time, and

(B) 12 hours solo flight time including 3 hours cross-country flight time with a flight of a minimum of 60 nautical miles which shall include 2 full stop landings at points other than the point of departure.

(ii) Single Seat

Where an applicant is completing training in a single seat gyroplane the 45 hours pilot flight time in gyroplanes, of which 15 hours may be in towed flight, shall include 3 hours cross-country flight time with a flight of a minimum of 60 nautical miles which shall include 2 full stop landings at points other than the point of departure.

(5) Skill

(a) Within the 12 months preceding the date of application for the permit, an applicant shall demonstrate in flight and on the ground to the holder of a Flight Instructor Rating - Gyroplane familiarity with, and the ability to perform normal and emergency manoeuvres appropriate to the gyroplane used in the test, and with a degree of competency appropriate to that of the holder of a Pilot Permit - Gyroplane.

(amended 1999/03/01)

(b) Where an applicant undertakes flight training and a flight test in a single-seat gyroplane, the flight test may be observed from another aircraft or the ground.

(6) Credits**(a) Knowledge**

An applicant who holds a private or higher type pilot licence for aeroplanes or helicopters shall, when applying for the issue of a Pilot Permit - Gyroplane, have the 40 hour ground school instruction requirement reduced to 20 hours.

(b) Experience

- (i) The total flight time must include a minimum of 30 hours in gyroplanes.
- (ii) Where an applicant holds a pilot licence in another aircraft category flight time credits shall be claimed as follows:

(A) Aeroplane and Helicopter

- (I) a maximum of 15 hours towards the total flight time; and
- (II) a maximum of 4 hours solo flight time, 2 hours of which shall be credited to solo cross-country flight time.

(B) Glider

A maximum of 5 hours pilot-in-command flight time towards the total flight time.

(7) Credits for DND Applicants**(a) Knowledge**

(amended 2005/12/01)

Active and former Canadian Forces personnel who have qualified to pilot helicopter wings standard upon application for the issue of a Pilot Permit - Gyroplane, shall:

(amended 2005/12/01)

- (i) meet the 40 hours ground school instruction requirement by completing only 20 hours of these requirements, and
(amended 2005/12/01)
- (ii) be considered to have met the written examination requirement provided that the applicant obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Air Regulations (PSTAR),
(amended 2005/12/01)

(b) Experience

(amended 2005/12/01)

(i) active and former Canadian Forces personnel who have qualified to pilot helicopter wings standard may claim credits towards the experience requirements as follows:

(amended 2005/12/01)

(A) a maximum of 15 hours towards the total flight time,

(B) a maximum of 4 hours solo flight time, 2 hours of which shall be credited to solo cross-country flight time, and

(C) the total flight time must include a minimum of 30 hours in gyroplanes.

(8) Credits for Foreign Applicants

The holder of a permit or licence, in the gyroplane category, issued by a Contracting State shall be deemed to have met the ground school instruction requirement, the written examination requirement and the skill requirement provided that the applicant:

(a) meets the experience requirements;

(b) obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Air Regulations (PSTAR); and

(c) has completed in gyroplanes a minimum of 5 take-offs and landings within the 6 months preceding the date of application for the Canadian licence.

421.21 *Ultra-light Aeroplane - Requirement***(1) Age**

An applicant shall be a minimum of sixteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 4 Medical Certificate valid for a Pilot Permit - Ultra-light Aeroplane.

(b) An applicant who meets the medical conditions specified on and signs the Civil Aviation Medical Declaration shall be deemed to have met the Category 4 Medical Standards.

(c) The permit is maintained by a valid Category 1, 3, or 4 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) completed a minimum of 20 hours of ultra-light aeroplane pilot ground school instruction on the following subjects:

(amended 2005/12/01)

(i) Air Law, including laws, regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the permit,

(ii) Navigation, including navigation, radio aids and electronic theory,

(iii) Meteorology,

(iv) Aeronautics – General, Knowledge including airframes, engines and systems, theory of flight, flight instruments, flight operations and human factors, including pilot decision making process, and

(v) Emergency procedures, including stall recognition and recovery procedures, and

(b) obtained a minimum of 60% on the written examination Pilot Permit - Ultra-light Aeroplane (ULTRA).

(amended 2005/12/01)

(4) Experience

Within the 24 months preceding the date of application for the permit, an applicant shall have acquired in ultra-light aeroplanes under the direction and supervision of the holder of a flight instructor rating - ultra-light aeroplane or aeroplane a minimum of 10 hours of total flight time, including:

(a) a minimum of 5 hours dual instruction flight time and 2 hours solo flight time, and

(b) a minimum of 30 takeoffs and landings, including a minimum of 10 as sole occupant.

(5) Skill

Within the 12 months preceding the date of application for the permit, an applicant shall submit to the Minister a letter from the holder of a Flight Instructor Rating - Ultra-light Aeroplane or from the holder of a Flight Instructor Rating — Aeroplane, certifying that the applicant has demonstrated the ability to perform normal and emergency manoeuvres appropriate to the ultra-light aeroplane used for the training program, and with a degree of competency appropriate to that of the holder of a pilot permit — Ultra-light aeroplane.

(amended 1999/03/01)

(6) Credits**(a) Knowledge**

(i) An applicant who holds a pilot permit or licence in any other category of aircraft shall be deemed to have met the written examination requirement.

(ii) An applicant who holds a pilot licence — aeroplane shall be deemed to have met the knowledge requirements.

(b) Experience

An applicant who is the holder of, or has held a pilot licence — aeroplane within the preceding 5 years shall have the experience requirements reduced to a minimum of 5 hours of flight time in ultra-light aeroplanes, including a minimum of 2 hours dual instruction flight time and a minimum of 2 hours solo flight time. The flight time shall include a minimum of 20 takeoffs, full circuits and landings, including a minimum of 10 as sole occupant.

(c) Skill

An applicant who holds a pilot licence — aeroplane shall be deemed to have met the skill requirements.

(7) Powered Parachutes

(a) When the experience requirements have been met, in whole or in part, on powered parachutes, the permit, when issued, shall be restricted to powered parachutes.

(b) The restriction shall be removed when the experience requirements have been met on ultra-light aeroplanes, other than powered parachutes.

(c) For the issue of an Pilot Permit - Ultra-light Aeroplane restricted to powered parachutes, the 10 hours total flight time shall be reduced to 5 hours and the 5 hours dual instruction flight time shall be deemed to have been met.

**421.22 Recreational — Aeroplane —
Requirements****(1) Age**

An applicant shall be a minimum of sixteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 4 Medical Certificate valid for a Pilot Permit — Recreational — Aeroplane.

(b) An applicant who meets the medical conditions specified on the Civil Aviation Medical Declaration and has signed it shall be deemed to have met the Category 4 Medical

Standards, providing a physician licensed to practice medicine in Canada has signed Part C of the declaration.

(c) The permit is maintained by a valid Category 1, 3, or 4 Medical Certificate.
(amended 2007/12/30)

(3) Knowledge

An applicant shall have obtained a minimum of 60 percent (60%) in each of the following four mandatory areas, as well as in the overall written examination Pilot Permit — Recreational — Aeroplane (RPPAE), or Private Pilot Licence — Aeroplane (PPAER):
(amended 1998/03/23)

- (a) Air Law - regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the permit;
- (b) Navigation - navigation, radio aids and electronic theory;
- (c) Meteorology;
- (d) Aeronautics - General Knowledge - airframes, engines and systems, theory of flight, flight instruments, flight operations and human factors.

(4) Experience

(a) An applicant shall have completed a minimum of 25 hours recreational pilot flight training under the direction and supervision of the holder of a flight instructor rating — aeroplane in aeroplanes operating with a Certificate of Airworthiness.

(b) The flight training shall include a minimum of:

- (i) 15 hours dual instruction flight time, including a minimum of 2 hours cross-country flight time, and
(amended 1998/03/23)
- (ii) 5 hours solo flight time.

(5) Skill

Within the 12 months preceding the date of application for the permit, an applicant shall successfully complete a flight test as pilot-in-command of an aeroplane in accordance with:
(amended 2012/02/19)

(a) Schedule 2 “Flight Test for the Issuance of a Recreational Pilot Permit – Aeroplane” of Standard 428 — *Conduct of Flight Tests*; or
(amended 2012/02/19)

(b) Schedule 3 “Flight Test for the Issuance of a Private Pilot Licence – Aeroplane” of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(6) Credits

(amended 1999/03/01)

An applicant for a Pilot Permit — Recreational — Aeroplane who holds a valid Pilot Permit - Ultra-light Aeroplane may credit all dual and solo flight time acquired in ultra-light aeroplanes towards the experience requirement.

(amended 1998/03/23)

(7) Credits for Foreign Applicants

(amended 1999/03/01)

The holder of a licence in the aeroplane category, issued by a Contracting State shall be considered to have met the written examination requirement and the skill requirement provided that the applicant:

(amended 2000/09/01)

(a) meets the experience requirements;

(amended 1999/03/01)

(b) obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Air Regulations (PSTAR); and

(amended 1999/03/01)

(c) has completed in aeroplanes a minimum of 5 take-offs and 5 landings within the 6 months preceding the date of application for the Canadian permit.

(amended 1999/03/01)

421.23 Recreational - Helicopter - Requirements

[Reserved]

DIVISION V - PILOT LICENCE

421.24 Gliders - Requirements

(1) Age

An applicant shall be a minimum of sixteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 4 Medical Certificate valid for a pilot licence - glider.

(b) An applicant who meets the medical conditions specified on and signs the Civil Aviation Medical Declaration shall be deemed to have met the Category 4 Medical Standards.

(c) The licence is maintained by a valid Category 1, 3 or 4 Medical Certificate.
(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) completed a minimum of 15 hours of glider pilot ground school instruction on the following subjects:

- (i) *Canadian Aviation Regulations*,
- (ii) Aerodynamics and Theory of flight,
- (iii) Meteorology,
- (iv) Airframes and Systems,
- (v) Flight Instruments,
- (vi) Navigation,
- (vii) Flight Operations,
- (viii) Emergency Procedures, and
- (ix) Human factors including pilot decision-making, and

(b) obtained a minimum of 60% in the written examination Pilot Licence - Glider (GLIDE).

(4) Experience

(a) Within the 24 months preceding the date of application for the licence, an applicant shall have completed a minimum of 6 hours of glider pilot flight training, under the direction and supervision of the holder of a Flight Instructor Rating - Glider.

(b) The flight training shall include:

- (i) a minimum of 1 hour dual instruction flight time, and
- (ii) 2 hours solo flight time, including a minimum of 20 takeoffs and 20 landings.

(5) Skill

(a) Within the 12 months preceding the date of application for the licence, an applicant shall demonstrate in flight and on the ground familiarity with, and the ability to perform both normal and emergency manoeuvres appropriate to the glider used in the test and with a degree of competency appropriate to the holder of a pilot licence - glider.

(amended 1998/03/23)

(b) An applicant shall submit a letter from the holder of a Flight Instructor Rating - Glider, qualified on the method of launch for the glider used for the test, attesting to the applicant's satisfactory completion of the skill requirement.

(amended 1998/03/23)

(6) Credits**(a) Knowledge**

- (i) An applicant who holds a pilot permit or licence in any other category of aircraft, except ultra-light aeroplanes, shall be deemed to have met 10 of the 15 hours ground school instruction requirement.
- (ii) An applicant who holds a pilot licence — aeroplane may be deemed to have met the ground school instruction requirement.
- (iii) An applicant who holds a pilot licence — aeroplane shall be deemed to have met the written examination requirement.

(b) Experience

An applicant who holds a pilot licence — aeroplane category shall have the total glider pilot flight training time reduced to a minimum of 3 hours, which shall include the minimum flight training specified.

(7) Licence Issued On the Basis of Foreign Licence

(amended 1999/03/01)

- (a) An applicant who holds a pilot licence — Glider issued by a Contracting State or an organization acceptable to that state, shall be considered:

(amended 1999/03/01)

- (i) to have met the ground school instruction requirement; and
(amended 1999/03/01)
- (ii) to have met the written examination requirement, the experience requirement and the skill requirement, provided that the foreign licence was not issued on the basis of a licence from another State, and that the applicant:
(amended 2000/09/01)

- (A) has obtained at least the number of hours of flight training required by subsection (4);

- (amended 2000/09/01)

- (B) obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Aviation Regulations (PSTAR); and

- (amended 1999/03/01)

- (C) has completed, in gliders, a minimum of 5 take-offs and 5 landings within the 6 months preceding the date of application for the Canadian licence.

- (amended 1999/03/01)

(b) In lieu of the requirement for take-offs and landings specified in clause 7(a)(ii)(C), an applicant may complete a minimum of 2 take-offs and 2 landings within the 6 months preceding the date of application for the Canadian licence and obtain, from the holder of a Canadian Flight Instructor Rating - Glider, a certificate of competency to carry passengers.
(amended 1999/03/01)

(c) The licence shall be annotated by the Minister to indicate that it was issued on the basis of the foreign licence.
(amended 1999/03/01)

(d) The Minister shall remove the annotation from the licence, provided that the applicant has successfully completed:
(amended 1999/03/01)

(i) the written examination requirement (GLIDE); and
(amended 1999/03/01)

(ii) the skill requirement.
(amended 1999/03/01)

(8) Credits for Foreign Applicants

(amended 1999/03/01)

(a) An applicant who holds a pilot licence - glider issued by a contracting state or an organization acceptable to that state and who does not wish to obtain a licence issued on the basis of the foreign licence, may be considered by the Minister to have met the ground school instruction requirement and the experience requirement provided that the applicant has obtained at least the number of hours of dual and solo flight training and experience required by subsection (4).
(amended 2003/03/01)

(b) An applicant who does not hold a pilot licence - glider issued by a contracting state may be credited foreign glider dual and solo flight training time and glider ground school time towards the knowledge and experience requirements for the issue of a Glider Pilot Licence, if the applicant provides certification from the holder of a Flight Instructor Rating - Glider that all ground and flight training exercises have been satisfactorily reviewed.
(amended 2003/03/01)

421.25 Balloons - Requirements

(1) Age

An applicant shall be a minimum of seventeen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 3 Medical Certificate valid for a pilot licence - balloon.

(b) The licence is maintained by a valid Category 1 or 3 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) completed a minimum of 10 hours of balloon pilot ground school instruction on the following subjects:

(i) *Canadian Aviation Regulations, NOTAM* and Air Traffic Rules and Procedures,

(ii) Aerostatics and Meteorology,

(iii) a balloon and its accessories, inflation, rigging and patching in conformance with manufacturer's recommendations,

(iv) management of takeoffs and landings in free and tethered flight regimes,

(v) precautions against cold and high altitude,

(vi) instruments,

(vii) navigation and aeronautical charts, and

(viii) human factors including pilot decision-making; and

(b) obtained a minimum of 60% in a written examination, Pilot Licence - Balloon (PIBAL).

(4) Experience

(a) Within the 24 months preceding the date of application for the licence, an applicant shall have completed a minimum of 16 hours balloon pilot flight time, of which a minimum of 11 hours shall be untethered flight time under the direction and supervision of the holder of a Flight Instructor Rating - balloon.

(b) Untethered flight time shall include a minimum of:

- (i) 6 dual instruction flights of a minimum of 30 minutes each including 1 ascent to an altitude of a minimum of 5,000 feet above ground level; and
- (ii) 2 flights as sole occupant of a minimum of 30 minutes each between takeoff and landing.

(5) Skill

(a) Within the 12 months preceding the date of application for the licence an applicant shall demonstrate, in flight and on the ground, familiarity with and the ability to perform both normal and emergency manoeuvres and procedures appropriate to the balloon used in the test and with a degree of competency appropriate to the holder of a Pilot Licence - Balloon.

(b) An applicant shall submit a letter from the holder of a Flight Instructor Rating - Balloons, qualified on the method of inflation for the balloon used in the test, attesting to the applicant's satisfactory completion of the skill requirement.

(amended 1998/03/23)

(6) Credits - Knowledge

An applicant who holds a pilot permit or licence in any other category of aircraft, except ultra-light aeroplane, shall be deemed to have met 5 of the 10 hours of ground school instruction requirement.

(7) Licence Issued On the Basis of Foreign Licence

(amended 1999/03/01)

(a) An applicant who holds a pilot licence - Balloon, issued by a Contracting State shall be considered:

(amended 1999/03/01)

(i) to have met the ground school instruction requirement; and

(amended 1999/03/01)

(ii) to have met the written examination requirement, the experience requirement and the skill requirement, provided that the foreign licence was not issued on the basis of a licence from another State, and that the applicant:

(amended 2000/09/01)

(A) has obtained at least the number of hours of flight training required by subsection (4);

(amended 2000/09/01)

(B) obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, Aviation Regulations (PSTAR); and

(amended 1999/03/01)

(C) has completed in balloons, a minimum of 5 take-offs and 5 landings within the 6 months preceding the date of application for the Canadian licence.
(amended 1999/03/01)

(b) The licence shall be annotated by the Minister to indicate that it was issued on the basis of the foreign licence.
(amended 1999/03/01)

(c) The Minister shall remove the annotation from the licence, provided the applicant has successfully completed:
(amended 1999/03/01)

(i) the written examination (PIBAL); and
(amended 1999/03/01)

(ii) the skill requirement.
(amended 1999/03/01)

(8) Credits for Foreign Applicants
(amended 1999/03/01)

(a) An applicant who holds a pilot licence - balloon, issued by a contracting state and who does not wish to obtain a licence issued on the basis of the foreign licence, may be considered by the Minister to have met the ground school instruction requirement and the experience requirement provided that the applicant has obtained at least the number of hours of dual and solo flight training and experience required by subsection (4).
(amended 2003/03/01)

(b) An applicant who does not hold a pilot licence – balloon issued by a contracting state may be credited foreign balloon dual and solo flight training time and balloon ground school time towards the knowledge and experience requirements for the issue of a Balloon Pilot Licence, if the applicant provides certification from the holder of a Flight Instructor Rating - Balloon that all ground and flight training exercises have been satisfactorily reviewed.
(amended 2003/03/01)

(9) Take-offs and Landings in Built-up Areas

A person may conduct a take-off in a balloon within a built-up area of any town or city, where the pilot-in-command has accumulated a minimum of:

(a) 50 hours in untethered balloons and, except for balloons operated in a commercial air service, has conducted a minimum of 3 takeoffs and landings in the specific manufacturer's model and AX class of balloon within the preceding 12 months, or

(b) 300 hours of flight time in untethered balloons.

DIVISION VI - PRIVATE PILOT LICENCE

421.26 *Aeroplanes - Requirements*

(1) **Age**

An applicant shall be a minimum of seventeen years of age.

(2) **Medical Fitness**

(amended 2007/12/30)

(a) An applicant shall hold a Category 3 Medical Certificate valid for a Private Pilot Licence — Aeroplanes:

(i) where an applicant holds a Category 4 Medical Certificate for the purpose of a Student Pilot Permit, the applicant shall upgrade to a Category 3 Medical Certificate prior to making application for the Private Pilot Licence — Aeroplane.

(b) The licence is maintained by a valid Category 1 or 3 Medical Certificate.

(amended 2007/12/30)

(3) **Knowledge**

An applicant shall have:

(a) completed a minimum of 40 hours private pilot aeroplane ground school instruction on the following subjects:

- (i) *Canadian Aviation Regulations*,
- (ii) Aerodynamics and Theory of Flight,
- (iii) Meteorology,
- (iv) Airframes, Engines and Systems,
- (v) Flight Instruments,
- (vi) Radio and Electronic Theory,
- (vii) Navigation,
- (viii) Flight Operations,
- (ix) Licensing Requirements, and
- (x) Human Factors, including pilot decision-making; and

(b) obtained a minimum of 60% in each of the following four mandatory subject areas as well as in the overall written examination Private Pilot Licence — Aeroplane (PPAER):

- (i) Air Law — regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the licence;
- (ii) Navigation — navigation, radio aids and electronic theory;
- (iii) Meteorology;
- (iv) Aeronautics — General Knowledge - airframes, engines and systems, theory of flight, flight instruments and flight operations.

(4) Experience

(a) An applicant shall have completed a minimum of 45 hours private pilot flight training in aeroplanes under the direction and supervision of the holder of a Flight Instructor Rating — Aeroplane. A maximum 5 of the 45 hours may be conducted on an approved aeroplane simulator or flight training device.

(amended 1998/09/01)

(b) The flight training shall include a minimum of:

- (i) 17 hours dual instruction flight time, including a minimum of 3 hours cross-country flight time and 5 hours of instrument time of which a maximum of 3 hours may be instrument ground time; and

(amended 1998/09/01)

- (ii) 12 hours solo flight time including 5 hours cross-country flight time with a flight of a minimum of 150 nautical miles which shall include 2 full stop landings at points other than the point of departure.

(5) Skill

Within the 12 months preceding the date of application for the licence, an applicant shall successfully complete a flight test as pilot-in-command of an aeroplane in accordance with Schedule 3 “Flight Test for the Issuance of a Private Pilot Licence – Aeroplane” of Standard 428 — *Conduct of Flight Tests*.

(amended 2012/02/19)

(6) Credits

(a) Knowledge

- (i) An applicant who holds a Pilot Permit - Gyroplane or a private or higher type pilot licence for helicopters may, when applying for the issue of Private Pilot Licence — Aeroplane have the 40 hour ground instruction requirement reduced to 20 hours.

(ii) An applicant who holds a Pilot Permit - Gyroplane or a private or higher type pilot licence for helicopters shall in lieu of completing the written examination PPAER obtain a minimum of 60% in the written examination Private Pilot Aeroplane Rating - Alternate Category (PARAC).

(b) Experience

(i) The total flight time must include a minimum of 30 hours in aeroplanes.

(ii) Where an applicant holds a pilot permit or licence in another aircraft category flight time credits shall be claimed as follows:

(amended 1998/03/23)

(A) Helicopter and Gyroplane

(I) a maximum of 15 hours towards the total flight time; and

(II) a maximum of 4 hours solo flight time, 2 hours of which shall be credited to solo cross-country flight time.

(B) Glider

A maximum of 5 hours pilot-in-command flight time towards the total flight time.

(C) Three Axis Ultra-light Aeroplane

A maximum of 10 hours pilot-in-command flight time towards the total flight time.

(D) Instrument Flight Time

An applicant who holds a private or higher type licence in another category shall be credited with instrument flight time acquired in the other category towards meeting the instrument experience requirements provided that the instrument flight time acquired in the other category is not credited towards the 17 hours of dual instruction flight time or the 12 hours solo flight time.

(7) Credits for DND Applicants

(a) Active and retired Canadian Forces personnel who have qualified to pilot aeroplane wings standard or who have successfully completed the Basic Flying Training course of approximately 120 hours shall be considered to have met the ground school instruction requirement, the written examination requirement, the course requirement and the skill requirement provided that:

(amended 2003/03/01)

(i) the applicant has met the flight time requirements specified in subsection (4) of which a minimum of 10 hours flight time in aeroplanes has been acquired in the 12 months preceding the date of application, and

(amended 2003/03/01)

(ii) the applicant obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, *Air Regulations* (PSTAR).

(amended 2003/03/01)

(b) A person who has undergone aeroplane pilot flight training in the Canadian Forces may be credited military dual and solo aeroplane flight time and aeroplane ground school time towards the knowledge and experience requirements for the issue of a Private Pilot Licence — Aeroplane.

(amended 2003/03/01)

(8) Licence Issued On the Basis of Foreign Licence

(amended 1999/03/01)

(a) An applicant who is the holder of a Private or higher pilot licence -aeroplane issued by a Contracting State shall be considered:

(amended 1999/03/01)

(i) to have met the ground school instruction requirement; and

(amended 1999/03/01)

(ii) to have met the written examination requirement and the flight test requirement, provided that the foreign licence was not issued on the basis of a licence from another State, and that the applicant:

(amended 1999/03/01)

(A) has met the flight time requirements specified in subsection (4);

(amended 2000/09/01)

(B) has obtained a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, *Aviation Regulations* (PSTAR); and

(amended 2000/09/01)

(C) has completed, as pilot in command or co-pilot in aeroplanes, a minimum of 5 take-offs and 5 landings within the 6 months preceding the date of application for the Canadian licence.

(amended 1999/03/01)

(b) The licence shall be annotated by the Minister to indicate that it was issued on the basis of the foreign licence.

(amended 1999/03/01)

(c) The Minister shall remove the annotation from the licence, provided that the applicant has successfully completed:

(amended 1999/03/01)

(i) the written examination requirements (PPAER); and

(amended 1999/03/01)

(ii) the skill requirement.

(amended 1999/03/01)

(9) Credits for Foreign Applicants

(amended 1999/03/01)

(a) An applicant who holds a Private or higher pilot licence — Aeroplane issued by a contracting state and who does not wish to obtain a licence issued on the basis of the foreign licence, may be considered by the Minister to have met the ground school instruction requirement.

(amended 1999/03/01)

(b) An applicant who holds a Private or higher pilot licence — Aeroplane issued by a contracting state other than Canada and who meets the flight time requirements specified in subsection (4) is considered to have met the experience requirements.

(amended 2000/09/01)

(c) An applicant who does not hold a Private or higher pilot licence — Aeroplane issued by a contracting state may be credited foreign dual and solo aeroplane flight training time and aeroplane ground school time towards the knowledge and experience requirements for the issue of a Private Pilot Licence — Aeroplane, if the applicant provides certification from the holder of a Flight Instructor Rating — Aeroplane that all ground and flight training exercises have been satisfactorily reviewed.

(amended 2003/03/01)

421.27 Helicopters - Requirements

(1) Age

An applicant shall be a minimum of seventeen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 3 Medical Certificate valid for a Private Pilot Licence - Helicopter.

(b) The licence is maintained by a valid new Category 1 or 3 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) completed a minimum of 40 hours private pilot helicopter ground school instruction on the following subjects:

- (i) *Canadian Aviation Regulations*,
- (ii) Aerodynamics and Theory of Flight,
- (iii) Meteorology,
- (iv) Airframes, Engines and Systems,
- (v) Flight Instruments,
- (vi) Radio and Electronic Theory,
- (vii) Navigation,
- (viii) Flight Operations,
- (ix) Licensing Requirements, and
- (x) Human Factors, including pilot decision-making; and

(b) obtained a minimum of 60% in each of the following four mandatory subject areas as well as in the overall written examination Private Pilot Licence - Helicopter (PPHEL):

- (i) Air Law - regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the licence;
- (ii) Navigation - navigation, radio aids and electronic theory;
- (iii) Meteorology;
- (iv) Aeronautics - General Knowledge - airframes, engines and systems, theory of flight, flight instruments and flight operations.

(4) Experience

(a) An applicant shall have completed a minimum of 45 hours private pilot flight training in helicopters under the direction and supervision of the holder of a flight instructor rating - helicopter. A maximum 5 of the 45 hours may be conducted in an approved helicopter simulator or flight training device.

(amended 1998/09/01)

(b) The flight training shall include a minimum of:

- (i) 17 hours dual instruction flight time, including a minimum of 3 hours cross-country flight time and 5 hours of instrument time of which a maximum of 3 hours may be instrument ground time; and

(amended 1998/09/01)

- (ii) 12 hours solo flight time including 5 hours cross-country flight time with a flight of a minimum of 100 nautical miles which shall include no fewer than 2 full stop landings at points other than the point of departure.

(5) Skill

Within the 12 months preceding the date of application for the licence, an applicant shall successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 5 "Flight Test for the Issuance of a Private Pilot Licence – Helicopter" of Standard 428 — *Conduct of Flight Tests* (amended 2012/02/19)

(6) Credits

(a) Knowledge

- (i) An applicant who holds a Pilot Permit - Gyroplane or a private or higher type pilot licence for aeroplanes shall, when applying for the issue of a Private Pilot Licence - Helicopter have the 40 hour ground instruction requirement reduced to 20 hours.
- (ii) An applicant who holds a Pilot Permit - Gyroplane or a private or higher type pilot licence for aeroplanes shall in lieu of completing the written examination PPHL obtain a minimum of 60% in the written examination Private Pilot Helicopter Rating - Alternate Category (PHRAC).

(b) Experience

- (i) The total flight time must include a minimum of 30 hours in helicopters.
- (ii) Where an applicant holds a pilot permit or licence in another aircraft category flight time credits shall be claimed as follows:
(amended 1998/03/23)

(A) Aeroplane and Gyroplane

- (I) a maximum of 15 hours towards the total flight time; and
- (II) a maximum of 4 hours solo flight time, 2 hours of which may be credited to solo cross-country flight time.

(B) Glider

A maximum of 5 hours pilot-in-command flight time towards the total flight time.

(C) Instrument Flight Time

An applicant who holds a private or higher type licence in another category shall be credited with instrument flight time acquired in the other category towards meeting the instrument experience requirements provided that the instrument flight time acquired in the other category is not credited towards the 17 hours of dual instruction flight time or the 12 hours solo flight time.

(7) Credits for DND Applicants

(a) Active and retired Canadian Forces personnel who have qualified to pilot helicopter wings standard shall be considered to have met the ground school instruction requirement, the written examination requirement, the course requirement and the skill requirement provided that:

(amended 2003/03/01)

(i) the applicant has met the flight time requirements specified in subsection (4) of which a minimum of 10 hours flight time in helicopters has been acquired in the 12 months preceding the date of application, and

(amended 2003/03/01)

(ii) the applicant obtains a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, *Air Regulations* (PSTAR).

(amended 2003/03/01)

(b) A person who has undergone helicopter pilot flight training in the Canadian Forces may be credited military dual and solo helicopter flight time and helicopter ground school time towards the knowledge and experience requirements for the issue of a Private Pilot Licence - Helicopter.

(amended 2003/03/01)

(8) Licence Issued On the Basis of Foreign Licence

(amended 1999/03/01)

(a) An applicant who holds a Private or higher pilot licence - Helicopter issued by a Contracting State shall be considered:

(amended 1999/03/01)

(i) to have met the ground school instruction requirement; and

(amended 1999/03/01)

(ii) to have met the written examination requirement and the flight test requirement, provided that the foreign licence was not issued on the basis of a licence from another State, and that the applicant:

(amended 1999/03/01)

(A) has met the flight time requirements specified in subsection (4);

(amended 2000/09/01)

(B) has obtained a minimum of 90% in the written examination Student Pilot Permit or Private Pilot Licence for Foreign and Military Applicants, *Aviation Regulations* (PSTAR); and

(amended 2000/09/01)

(C) has completed as pilot in command or co-pilot in helicopters, a minimum of 5 take-offs and 5 landings within the 6 months preceding the date of application for the Canadian licence.

(amended 1999/03/01)

(b) The licence shall be annotated by the Minister to indicate that it was issued on the basis of the foreign licence.

(amended 1999/03/01)

(c) The Minister shall remove the restriction from the licence, provided that the applicant has successfully completed:

(amended 1999/03/01)

(i) the written examination requirements (PPHEL); and

(amended 1999/03/01)

(ii) the skill requirement.

(amended 1999/03/01)

(9) Credits for Foreign Applicants

(amended 1999/03/01)

(a) An applicant who holds a Private or higher pilot licence - Helicopter issued by a contracting state and who does not wish to obtain a licence issued on the basis of the foreign licence may be considered by the Minister to have met the ground school instruction requirement.

(amended 2003/03/01)

(b) An applicant who holds a Private or higher pilot licence - Helicopter issued by a contracting state other than Canada and who meets the flight time requirements specified in subsection (4) is considered to have met the experience requirements.

(amended 2003/03/01)

(c) An applicant who does not hold a Private or higher pilot licence - Helicopter issued by a contracting state may be credited foreign dual and solo helicopter flight training time and helicopter ground school time towards the knowledge and experience requirements for the issue of a Private Pilot Licence - Helicopter, if the applicant provides certification from the holder of a Flight Instructor Rating - Helicopter that all ground and flight training exercises have been satisfactorily reviewed.

(amended 2003/03/01)

DIVISION VII - COMMERCIAL PILOT LICENCE

421.30 Aeroplanes - Requirements

The requirements in respect of an application for a Commercial Pilot Licence — Aeroplane are the following:

(amended 2006/12/14)

(1) Age

An applicant shall be a minimum of eighteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 1 Medical Certificate valid for a Commercial Pilot Licence — Aeroplane.

(b) The licence holder may exercise Private Pilot Licence — Aeroplane privileges until the end of the medical period specified for the Private Pilot Licence.

(amended 2007/12/30)

(c) The licence is maintained by a valid Category 1 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

Ground School Instruction

(amended 2006/12/14)

(a) An applicant shall have completed a minimum of 80 hours commercial pilot aeroplane ground school instruction including at least the following subjects:

(amended 2006/12/14)

- (i) *Canadian Aviation Regulations*,
- (ii) aerodynamics and theory of flight,
- (iii) meteorology,
- (iv) airframes, engines and systems,
- (v) flight instruments,
- (vi) radio and electronic theory,
- (vii) navigation,
- (viii) flight operations,
- (ix) licensing requirements, and
- (x) human factors including pilot decision-making.

(b) An applicant who is a graduate from an approved integrated course shall have completed the applicable course requirements in section 426.75 of the *Canadian Aviation Regulations*.

(amended 2006/12/14)

Written Examination

(amended 2006/12/14)

(c) All applicants shall have obtained a minimum of 60% in each of the following four mandatory subjects areas as well as in the overall written examination Commercial Pilot Licence — Aeroplane (CPAER):

(amended 2006/12/14)

- (i) Air Law - regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the licence,
- (ii) Navigation - navigation, radio aids and electronic theory,
- (iii) Meteorology, and
- (iv) Aeronautics - General Knowledge - airframes, engines and systems, theory of flight, flight instruments and flight operations.

(d) An applicant who is a graduate from an approved integrated course shall have completed the applicable course requirements in section 426.75 of the *Canadian Aviation Regulations*.

(amended 2006/12/14)

(4) Experience

(a) An applicant for a commercial pilot licence — aeroplane shall

(amended 2006/12/14)

- (i) have completed, subject to paragraph (b), a minimum of 200 hours flight time in aeroplanes, of which a minimum of 100 hours shall be pilot-in-command time including 20 hours cross-country pilot-in-command flight time, and

(amended 2006/12/14)

- (ii) following the issuance of a private pilot licence — aeroplane by Canada or another contracting state, have completed 65 hours of commercial pilot flight training in aeroplanes consisting of a minimum of:

(amended 2006/12/14)

- (A) 35 hours dual instruction flight time, under the direction and supervision of the holder of a Flight Instructor Rating — Aeroplane, including:

(amended 2006/12/14)

- (I) 5 hours night, including a minimum of 2 hours of cross-country flight time;

(amended 2006/12/14)

(II) 5 hours cross-country, which may include the cross-country experience stated in subclause (I); and
(amended 2006/12/14)

(III) 20 hours of instrument flight time in addition to the experience stated in subclauses (I) and (II). A maximum 10 hours of the 20 hours may be conducted on an approved aeroplane simulator or synthetic flight training device.
(amended 2006/12/14)

(B) 30 hours solo flight time including:
(amended 2006/12/14)

(I) 25 hours solo flight time emphasizing the improvement of general flying skills of the applicant which shall include a cross-country flight to a point of a minimum of 300 nautical mile radius from the point of departure and shall include a minimum of 3 landings at points other than that of departure; and
(amended 2006/12/14)

(II) 5 hours solo flight time by night during which a minimum of 10 takeoffs, circuits and landings were completed.
(amended 2006/12/14)

(b) An applicant who is a graduate from an approved integrated course shall have completed the applicable experience requirements in section 426.75 of the *Canadian Aviation Regulations*.
(amended 2006/12/14)

(5) Skill

Within the 12 months preceding the date of application for the licence, an applicant for a commercial pilot licence — aeroplane shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 4 “Flight Test for the Issuance of a Commercial Pilot Licence – Aeroplane” of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(6) Restricted Licence - Daylight Flying

(a) If an applicant has not completed the night flight time requirements, the licence shall be restricted to daylight flying, however the total dual instruction flight time and solo flight time requirements for the issuance of the licence shall be met.
(amended 2006/12/14)

(b) If an applicant completes the night flight time requirements, the restriction shall be removed.
(amended 2006/12/14)

(c) If an applicant holds a pilot licence - helicopter valid for night flying, the night flight time experience may be reduced to 5 hours pilot flight time which shall include:
(amended 2006/12/14)

- (i) 2 hours dual instruction night flight time,
(amended 2006/12/14)
- (ii) 1 hour solo night flight time, and
- (iii) 1 hour dual instruction instrument flight time.
(amended 2006/12/14)

(7) Credits

(a) Knowledge

- (i) An applicant who holds a Commercial Pilot Licence - Helicopter or higher, shall, when applying for the issue of a Commercial Pilot Licence — Aeroplane, be credited with 20 hours of the 80 hour ground school instruction requirement.
(amended 2006/12/14)
- (ii) An applicant who holds a Commercial Pilot Licence - Helicopter or higher, shall, in lieu of completing the written examination Commercial Pilot — Aeroplane (CPAER), obtain a minimum of 60% in the written examination Commercial Pilot Licence (Aeroplane) - Alternate Category (CARAC).
(amended 1999/03/01)

(b) Experience

(amended 2006/12/14)

If an applicant holds a pilot permit or licence in another aircraft category, flight time credits may be claimed as follows:

(i) Commercial Pilot Licence - Helicopter

If an applicant holds a Commercial Pilot Licence - Helicopter, the 200 hours total flight time in aeroplanes required by subparagraph (4)(a)(i) is considered to have been met if the applicant has completed a minimum of 100 hours pilot flight time in aeroplanes, including the 65 hours experience required by subparagraph (4)(a)(ii). In this case, it is not necessary to obtain a Private Pilot Licence — Aeroplane prior to obtaining the Commercial Pilot Licence — Aeroplane.
(amended 2006/12/14)

(ii) Private Pilot Licence - Helicopter

If an applicant holds a Private Pilot Licence — Helicopter, the following must be met:
(amended 2006/12/14)

(A) a maximum of 50 hours flight time in helicopters shall be credited towards the 200 hours total flight time requirement, and

(B) a maximum of 25 hours of pilot-in-command flight time in helicopters shall be credited towards the 100 hours pilot-in-command flight time requirement.

(iii) Pilot Licence - Glider

If an applicant holds a Pilot Licence - Glider, a maximum of 50 hours flight time in gliders shall be credited towards the 200 hours total flight time requirement but this time shall not be credited towards the 100 hour pilot-in-command flight time.
(amended 2006/12/14)

(iv) Three Axis Ultra-light Aeroplane

If an applicant holds a Pilot Permit — Ultra-light Aeroplane, a Recreational Pilot Permit — Aeroplane or a Private Pilot Licence — Aeroplane, a maximum of 25 hours pilot-in-command flight time in three axis ultra-light aeroplanes shall be credited towards the 200 hours total flight time requirement but this time shall not be credited towards the 100 hour pilot-in-command flight time.
(amended 2006/12/14)

(v) Instrument Flight Time

If an applicant holds a Pilot Licence — Helicopter category, they shall be credited with instrument flight time acquired in helicopters towards meeting the instrument flight time experience requirements provided that the applicant has acquired a minimum of 10 hours of dual instruction instrument flight time in aeroplanes.
(amended 2006/12/14)

(vi) Night Flight Time

(A) If an applicant holds a Private Pilot Licence — Aeroplane with a night rating, the total dual instruction and solo night flight time requirements are considered to have been met provided that the 35 hours dual instruction flight time and 30 hours solo flight time requirements are met.
(amended 2006/12/14)

(B) If an applicant holds a Pilot Licence — Helicopter valid for night privileges, the night flight time acquired in helicopters shall be credited towards the total dual instruction flight time and solo night flight time requirements provided that the applicant has acquired at night, in aeroplanes, a minimum of 1 hour dual instruction flight time and 1 hour solo flight time and the 35 hours dual instruction flight time and 30 hours solo flight time requirements are met.

(amended 2006/12/14)

(8) Credits for Canadian Forces Applicants

(amended 2006/12/14)

Active and retired Canadian Forces personnel who have qualified to pilot aeroplane wings standard are considered to have met the ground school instruction requirement, the written examination requirement, the skill requirement and the requirement to hold a Private Pilot Licence, if the applicant:

(amended 2006/12/14)

(a) has met the flight time requirements specified in paragraph (4)(a) of which a minimum of 10 hours flight time was acquired in aeroplanes in the 12 months preceding the date of application; and

(amended 2006/12/14)

(b) obtains a minimum of 60% in the written examination Commercial Pilot Licence (Aeroplane) Air Law, Air Traffic Rules and Procedures (ARPCO).

(amended 2006/12/14)

(9) Credits for Foreign Applicants

If an applicant has met the flight time requirements specified in paragraph (4)(a), the applicant who holds a commercial or higher type pilot licence in the aeroplane category, issued by a contracting state is considered to have met the ground school requirement.

(amended 2006/12/14)

421.31 Helicopters - Requirements

(1) Age

An applicant shall be a minimum of eighteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 1 Medical Certificate valid for a Commercial Pilot Licence - Helicopter.

(b) The licence holder may exercise Private Pilot Licence — Helicopter Category privileges until the end of the medical period specified for the Private Pilot Licence.

(amended 2007/12/30)

(c) The licence is maintained by a valid Category 1 Medical Certificate.
(amended 2007/12/30)

(3) Knowledge

(a) An applicant who holds a Private Pilot Licence — Helicopter shall have:

(i) completed a minimum of 40 hours commercial pilot helicopter ground school instruction, on the following subjects:

- (A) *Canadian Aviation Regulations*,
- (B) Aerodynamics and Theory of Flight,
- (C) Meteorology,
- (D) Airframes, Engines and Systems,
- (E) Flight Instruments,
- (F) Radio and Electronic Theory,
- (G) Navigation,
- (H) Flight Operations,
- (I) Licensing Requirements, and
- (J) Human factors including pilot decision-making; and

(ii) obtained a minimum of 60% in each of the following four mandatory subject areas as well as in the overall written examination Commercial Pilot Licence - Helicopter (CPHEL):

- (A) Air Law - regulations, rules and orders, air traffic services, practices and procedures, and licensing requirements relevant to the licence;
- (B) Navigation - navigation, radio aids and electronic theory;
- (C) Meteorology; and
- (D) Aeronautics - General Knowledge - airframes, engines and systems, theory of flight, flight instruments and flight operations.

(b) An applicant who does not hold a Private Pilot Licence - Helicopter shall complete an additional 40 hours commercial pilot helicopter ground school instruction for a total of 80 hours.

(4) Experience

(a) An applicant shall have completed a minimum of 100 hours pilot flight time in helicopters, of which a minimum of 35 hours shall be pilot-in-command flight time, including 10 hours cross-country pilot-in-command flight time; and

(b) an applicant who holds a Private Pilot Licence - Helicopter or a Private Pilot Licence - Helicopter issued by a Contracting State other than Canada shall have completed 60 hours of commercial pilot flight training in helicopters consisting of a minimum of:

(amended 2000/09/01)

(i) 37 hours dual instruction flight time, under the direction and supervision of the holder of a flight Instructor Rating - Helicopter, including:

(amended 2000/09/01)

(A) 15 hours of advanced dual instruction, emphasizing the improvement of general flying ability and skill, including a minimum of 5 hours of cross-country flight;

(B) 5 hours night flight time including a minimum of 2 hours cross-country flight time;

(C) in addition to (A) and (B), 10 hours of instrument flight time, using suitable radio navigational facilities to complete elementary navigation procedures and two-way radio to comply with Air Traffic Control procedures and clearances including a minimum of 5 hours in helicopters. A maximum 5 hours of the 10 hours may be conducted on an approved helicopter simulator or flight training device.

(amended 1998/09/01)

(D) Credit for a maximum of 5 hours of dual instrument time acquired during training for issue of the Private Pilot Licence - Helicopter shall be given towards the 10 hours of dual instrument time.

(ii) 23 hours solo flight time emphasizing the improvement of general flying ability and skill, including:

(A) a cross-country flight of at least 2 hours duration and to a point a minimum of 45 minutes flight time at normal cruising speed from the point of departure including a minimum of 3 landings at points other than the point of departure, and

(amended 2005/06/01)

(B) 5 hours solo flight time by night, including a minimum of 10 takeoffs, circuits and landings.

(amended 1998/09/01)

(c) An applicant who does not hold a Private Pilot Licence - Helicopter shall have completed a minimum of 100 hours commercial pilot flight training in helicopters, consisting of a minimum of:

(i) 55 hours dual instruction flight time under the direction and supervision of the holder of a flight Instructor Rating - Helicopter, including:

(amended 2000/09/01)

(A) 5 hours cross-country flight time, and

(B) in addition to (A), 10 hours of dual instrument flight time, using suitable radio navigational facilities to complete elementary navigation procedures and two-way radio to comply with Air Traffic Control procedures and clearances, including a minimum of 5 hours in helicopters. A maximum of 5 hours of the 10 hours may be conducted on an approved helicopter simulator or flight training device.

(amended 1998/09/01)

(ii) 35 hours solo flight time emphasizing the improvement of general flying ability and skill, including a cross-country flight to a point a minimum of 2 hours flight time at normal cruising speed from the point of departure including a minimum of 3 landings at points other than the point of departure.

(amended 1998/09/01)

(iii) The licence shall be issued restricted to daylight flying.

(5) Skill

Within the 12 months preceding the date of application for the licence, an applicant shall successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 6 "Flight Test for the Issuance of a Commercial Pilot Licence – Helicopter" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(6) Restricted Licence - Daylight Flying

(a) Where an applicant has not completed the night flight time requirements the licence shall be issued restricted to daylight flying and the total dual instruction flight time and solo flight time required for the issue of the licence shall be met.

(b) Where an applicant completes the night flight time requirements, the restriction shall be removed.

(c) Where an applicant holds a pilot licence — aeroplane valid for night flying, the night flight time experience shall be reduced to 5 hours pilot flight time which shall include:

(i) 2 hours dual night flight time,

(ii) 1 hour solo night flight time, and

(iii) 1 hour dual instrument flight time.

(7) Credits**(a) Knowledge**

- (i) An applicant who holds a Commercial Pilot Licence — Aeroplane shall, when applying for the issue of a Commercial Pilot Licence — Helicopter have the 40 hour ground school instruction requirement reduced to 20 hours.
- (ii) An applicant who holds a Private Pilot Licence in another category but does not hold a Private Pilot Licence - Helicopter shall, when applying for a Commercial Pilot Licence - Helicopter have the 80 hours ground school requirement reduced to 60 hours.
- (iii) An applicant who holds a Commercial Pilot Licence — Aeroplane shall, in lieu of completing the written examination CPHEL, obtain a minimum of 60% in the written examination Commercial Pilot Licence (Helicopter) — Alternate Category (CHRAC).

(b) Experience

Where an applicant holds a pilot permit or licence in another aircraft category, flight time credits shall be claimed as follows:

(i) Commercial Pilot Licence or higher — Aeroplane

Where an applicant holds a Commercial Pilot Licence — Aeroplane or higher type licence in the aeroplane category, the 100 hours total flight time in helicopters required by paragraph (4)(a) above shall be deemed to have been met provided the applicant has completed a minimum of 60 hours flight time in helicopters, including all of the experience requirements demanded by paragraph (4)(b) above.

(amended 2000/09/01)

(ii) Instrument Flight Time

An applicant who holds a pilot licence — aeroplane category shall be credited with instrument flight time acquired in aeroplanes towards meeting the instrument flight time experience requirements provided that the applicant has acquired a minimum of 5 hours of dual instrument flight time in helicopters, and the instrument flight time in aeroplanes is not credited towards the 37 hours of dual instruction flight time or the 23 hours solo flight time.

(iii) Night Flight Time

(A) Where an applicant holds a Private Pilot Licence - Helicopter with a night rating, the total dual and solo night flight time requirements shall be deemed to have been met provided that the 37 hours dual instruction flight time and the 23 hours solo flight time requirements are met.

(B) Where an applicant holds a pilot licence — aeroplane category, valid for night privileges, night flight time acquired in aeroplanes shall be credited towards the total dual and solo night flight time requirements provided that the applicant has acquired

at night, in helicopters a minimum of 1 hour dual instruction flight time and 1 hour solo flight time, and the 37 hours dual instruction flight time and the 23 hours solo flight time requirements are met.

(8) Credits for DND Applicants

(a) Active and former Canadian Forces personnel who have qualified to pilot helicopter wings standard are considered to have met the ground school instruction requirement, the written examination requirement and the skill requirement if the applicant:

(amended 2005/12/01)

(i) has met the flight time requirements specified in subsection (4) of which a minimum of 10 hours flight time was acquired in helicopters in the 12 months preceding the date of application, and

(amended 2005/12/01)

(ii) obtains a minimum of 60% in the written examination Commercial Pilot Licence (Helicopter) Air Law, Air Traffic Rules and Procedures (HARPC).

(amended 2005/12/01)

(b) Active and former Canadian Forces personnel who have not qualified to pilot helicopter wings standard but who have undergone helicopter pilot flight training in the Canadian Forces may be credited military dual and solo helicopter flight time and helicopter ground school time towards the knowledge and experience requirements for the issue of a Commercial Pilot Licence – Helicopter.

(amended 2005/12/01)

(9) Credits for Foreign Applicants

Provided that the applicant has met the flight time requirements specified in subsection (4):
(amended 2005/06/01)

(a) the holder of a Commercial or higher type pilot licence in the helicopter category issued by a Contracting State is considered to have met the ground school instruction requirement specified in subparagraph (3)(a)(i) and the experience requirements specified in subsection (4); or

(amended 2005/12/01)

(b) the holder of an Airline Transport Pilot Licence in the helicopter category issued by a Contracting State is considered to have met the skill requirement specified in subsection (5) by passing a Pilot Proficiency Check (PPC) for operations in accordance with Part VII, within the 12 months preceding the date of the application for the licence.

(amended 2005/06/01)

DIVISION VIII - AIRLINE TRANSPORT PILOT LICENCE

421.34 *Aeroplanes - Requirements*

(1) Age

An applicant shall be a minimum of twenty-one years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 1 Medical Certificate valid for an Airline Transport Pilot Licence — Aeroplane.

(b) The licence holder may exercise Private Pilot Licence — Aeroplane privileges until the end of the medical period specified for the Private Pilot Licence.

(amended 2007/12/30)

(c) The licence is maintained by a valid Category 1 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have obtained a minimum of 70% in each of three written examinations on the following aviation subjects:

(a) Airline Transport Pilot Licence (Aeroplane) Meteorology, Radio Aids to Navigation and Flight Planning (SAMRA) including:

- (i) general system of weather collection and dissemination,
- (ii) weather map, weather forecast, weather abbreviations, symbols and nomenclature,
- (iii) pressure systems and their association with fronts, cloud forms and icing conditions,
- (iv) the movement of upper winds and their effect on aircraft operations,
- (v) weather service circulars and instructions for air route meteorological service which are pertinent to aircraft operations, and
- (vi) radio communication procedures relating to aircraft operation; and

(b) Airline Transport Pilot Licence (Aeroplane) Air Law, Aeroplane Operation and Navigation General (SARON) including:

- (i) basic principles of air navigation such as formulae, instruments and other navigational aids which are commonly used in the navigation of aircraft,
- (ii) basic principles of loading and weight distribution and their effect on flight characteristics,

(iii) *Canadian Aviation Regulations*, Air Traffic Rules and Procedures, Information Circulars and *NOTAM*, and

(iv) human factors, including pilot decision-making; and

(c) Instrument Rating (INRAT).

(4) Experience

An applicant shall have met the training requirements for the issue of a Commercial Pilot Licence — Aeroplane that is not restricted to daylight flying and completed a minimum of 1500 hours total flight time of which a minimum of 900 hours shall have been completed in aeroplanes. The total flight time shall include a minimum of:

(amended 2000/09/01)

(a) 250 hours pilot-in-command flight time in aeroplanes which shall include where applicable, a maximum of 100 hours pilot-in-command under supervision flight time completed in accordance with Section 421.11. The pilot-in-command and/or pilot-in-command under supervision flight time shall include a minimum of 100 hours cross-country flight time of which a minimum of 25 hours shall have been by night;

(b) 100 hours night flight time as pilot-in-command or as co-pilot of which a minimum of 30 hours shall have been acquired in aeroplanes;

(c) 100 additional hours cross-country flight time as pilot-in-command or 200 hours as co-pilot or any combination thereof, with flight time calculated in accordance with section 421.10. Flight time as pilot-in-command may be part of the 250 hours pilot-in-command flight time specified in paragraph (a); and

(amended 2005/12/01)

(d) 75 hours instrument flight time of which a maximum of 25 hours may have been acquired in approved instrument ground trainers and a maximum of 35 hours may have been acquired in helicopters. Instrument ground time shall not be applied toward the total 1500 hour flight time requirement.

(5) Skill

(a) Within the 12 months preceding the date of application for the licence, an applicant shall demonstrate in a multi-engined aeroplane with no central thrust configuration and fitted with instruments and equipment suitable for IFR flight in controlled airspace, familiarity with and the ability:

(amended 1999/03/01)

(i) to perform normal and emergency flight procedures and manoeuvres appropriate to the aeroplane in which the flight test is conducted; and

(ii) to execute all manoeuvres and procedures set forth in Division XIV for issue of a Group 1 instrument rating.

(b) For issue of the Airline Transport Pilot Licence — Aeroplane, the Minister shall only endorse a Group 1 Instrument Rating on the licence.

(amended 2005/06/01)

(6) Credits - Experience

(a) Glider

Where an applicant holds a Pilot Licence - Glider, a maximum of 50 hours flight time in gliders shall be credited towards the total 1500 hour flight time requirement.

(b) Three Axis Ultra-light Aeroplanes

Where an applicant holds a Pilot Permit - Ultra-light Aeroplane, a Recreational Pilot Permit – Aeroplane, a Private Pilot Licence – Aeroplane or a Commercial Pilot Licence – Aeroplane, a maximum of 50 hours flight time in three axis ultra-light aeroplanes shall be credited towards the total 1500 hour flight time requirement.

(amended 2005/06/01)

(7) Credits for DND Applicants

Active and retired Canadian Forces personnel who hold a Canadian Forces Instrument Rating (unrestricted) in a multi-engined aeroplane (Group 1) shall be deemed to have met the skill requirement.

421.35 Helicopters - Requirement

(1) Age

An applicant shall be a minimum of twenty-one years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 1 Medical Certificate valid for an Airline Transport Pilot Licence - Helicopter.

(b) The licence holder may exercise Private Pilot Licence - Helicopter privileges until the end of the medical period specified for the Private Pilot Licence.

(amended 2007/12/30)

(c) The licence is maintained by a valid Category 1 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have obtained a minimum of 70% on each of the two Airline Transport Pilot Licence (Helicopter) examinations Meteorology, Radio Aids to Navigation and Flight Planning (HAMRA) and Air Law, Helicopter Operation and Navigation General (HARON) on the following subjects:

- (a) *Canadian Aviation Regulations*, and air traffic rules and procedures;
- (b) Aerodynamics and theory of flight relating to helicopters;
- (c) Meteorology;
- (d) Airframes, engines and systems;(e) Flight instruments;
- (f) Avionics;
- (g) Navigation;
- (h) Aircraft performance;
- (i) Flight operations; and
- (j) Human factors, including pilot decision-making.

(4) Experience

An applicant shall have met the training requirements for the issue of a Commercial Pilot Licence - Helicopter that is not restricted to daylight flying and completed a minimum of 1000 hours total flight time of which a minimum of 600 hours shall have been completed in helicopters. The total flight time shall include a minimum of:

- (a) 250 hours pilot-in-command flight time in helicopters as pilot-in-command, which may include a maximum of 150 hours pilot-in-command under supervision flight time in accordance with Section 421.11;
- (b) 50 hours night flight time as pilot-in-command or as co-pilot of which a minimum of 15 hours shall have been acquired in helicopters;
- (c) 200 hours cross-country flight time in helicopters of which a minimum of 100 hours shall be as pilot-in-command or as pilot-in-command under supervision in accordance with Section 421.11;
- (d) 30 hours instrument time of which a maximum of 10 hours may be instrument ground time and a maximum of 15 hours may have been acquired in aeroplanes. Instrument ground time may not be applied toward the total 1000 hour flight time requirement.

(5) Skill

Within the 12 months preceding the date of application for the licence, an applicant shall demonstrate in flight and on the ground familiarity with and the ability to perform, as pilot-in-command of a helicopter required to be operated with a co-pilot, both normal and emergency procedures and manoeuvres appropriate to the privileges of an Airline Transport Pilot Licence - Helicopter.

(amended 1999/03/01)

(6) Restricted Licence - Aerial Work Only

(a) Where an applicant has not completed the instrument flight time requirement or the night flight time requirement, the licence shall be issued restricted to aerial work only and the total dual and solo flight time requirements for the issue of the licence shall be met.

(b) Where an applicant completes the instrument flight time and night flight time requirements, the restriction shall be removed.

(7) Credits for DND Applicants

Active and retired Canadian Forces personnel who hold a Canadian Forces Instrument Rating completed on a helicopter required to be operated with a co-pilot shall be deemed to have met the skill requirement.

(amended 1998/03/23)

DIVISION IX - FLIGHT ENGINEER LICENCE**421.37 Requirements****(1) Age**

An applicant shall be a minimum of eighteen years of age.

(2) Medical Fitness

(amended 2007/12/30)

(a) An applicant shall hold a Category 1 Medical Certificate valid for a Flight Engineer Licence.

(amended 2007/12/30)

(b) The licence is maintained by a valid Category 1 Medical Certificate.

(amended 2007/12/30)

(3) Knowledge

An applicant shall have:

(a) obtained a minimum of 60% in the Flight Engineer Licence (FLENG) written examination including:

- (i) *Canadian Aviation Regulations*, Air Traffic Rules and Procedures, and Aeronautical Information applicable to the duties of a flight engineer,
- (ii) theory of flight,
- (iii) aircraft limitations and performance data,
- (iv) flight documentation relating to flight engineer's duties,
- (v) principles of flight planning based on typical charts and graphs applicable to loading, centre of gravity, aircraft performance fuel consumption, engine power, control of engine power output and the effect thereon of varying meteorological conditions,
- (vi) general principles of maintenance and functioning of airframes and power plants, including their accessories, instruments, installed equipment and cabin systems in aircraft certificated for operation by a minimum crew that includes a flight engineer,
- (vii) emergency procedures in the event of power plant and systems malfunctions, and
- (viii) human factors; and

(b) completed, during an approved course of training, an examination including the aircraft performance, systems, and normal and emergency procedures with respect to the aircraft type to be endorsed on the licence.

(4) Experience

An applicant shall have completed in the performance of the duties of a flight engineer:

(a) a minimum of 100 hours of experience, under the supervision of a flight engineer or second officer endorsed for the aircraft type, of which a maximum of 50 hours aircraft type simulator time acquired during an approved course of training shall be credited towards the total experience; or

(b) where the applicant is the holder of a Commercial Pilot or higher licence — aeroplane and has successfully completed the approved course of training, a minimum of 50 hours experience, under the supervision of a flight engineer or second officer, endorsed for the aircraft type, of which not more than 25 hours aircraft type simulator time acquired during an approved course of training shall be credited towards the total experience.

(amended 2000/09/01)

(5) Skill

(a) An applicant shall provide a letter certifying that within the 12 months preceding the date of application for the licence the applicant has, with respect to the aircraft type to be endorsed on the licence, demonstrated in the aeroplane type or approved aeroplane type simulator the ability to perform both normal and emergency procedures to a degree of competency appropriate to the privileges granted by the licence.

(amended 2005/06/01)

(b) The letter of certification shall be signed by one of the following persons:

(i) a supervisory Flight Engineer whose Canadian Flight Engineer Licence is valid and endorsed for the aircraft type;

(ii) a supervisory Second Officer holding a Commercial or higher licence with a Second Officer endorsement for the aircraft type;

(iii) the Canadian company's Chief Pilot;

(amended 2000/09/01)

(iv) the applicant's Commanding Officer in the case of Canadian Forces personnel; or

(v) a designated Department of Transport Civil Aviation Inspector.

(6) Endorsement of Aircraft Types

(a) An aircraft type rating shall be issued concurrently with the initial issue of a Flight Engineer Licence.

(b) Additional aircraft types may be endorsed on a Flight Engineer Licence upon submission of a letter certifying that, with respect to the aircraft type, the applicant has met the skill requirement and has successfully completed an approved course of training.

(7) Credits

The holder of a Commercial or higher licence with a Second Officer rating for the applicable aircraft type shall be deemed to have met the knowledge, experience and skill requirements provided the applicant:

(a) is, or has been within the three months preceding the date of application, assigned as a second officer, and

(b) has, within the 12 months preceding the date of application acquired a minimum of 50 hours flight time in the performance of the duties of a flight engineer.

(8) Credits for DND Applicants

A Canadian Forces flight engineer qualified on the applicable aircraft type shall be deemed to have met the knowledge and experience requirements provided that the applicant:

- (a) submits the application for licence not later than 3 months following the date of retirement, discharge or termination of active reserve duty,
- (b) obtains a minimum of 60% in the written examination Flight Engineer Licence (Aeroplane) Air Law, Air Traffic Rules and Procedures (FLEAR), and
- (c) has acquired 50 hours flight time in the performance of the duties of a flight engineer within the 12 months preceding the date of application for the licence.

(9) Credits for Foreign Applicants

The holder of a Flight Engineer Licence, with the applicable aircraft type rating, issued by a Contracting State, shall be considered to have met the experience requirements provided that the applicant has, within the 12 months preceding the date of application, acquired 50 hours flight time in the performance of the duties of a flight engineer.

(10) Training Outside Canada

An applicant who has successfully completed a flight engineer or second officer course of training outside of Canada shall provide a syllabus of the training program and evidence from the Licensing Authority of that State that the course meets their licence standards.

DIVISION X — AEROPLANE CLASS RATINGS**421.38 Requirements****(1) Seaplane Rating - Requirements****(a) Experience**

- (i) An applicant for a seaplane rating shall complete a total of 7 hours of seaplane training, including:
(amended 1998/03/23)
 - (A) a minimum of 5 hours dual instruction, and
(amended 1998/03/23)
 - (B) a minimum of 5 takeoffs and landings as sole occupant of the aeroplane, except for two crew aircraft, in which case the takeoffs and landings shall be done as pilot-in-command.
- (ii) The following exercises shall be included in the seaplane training:
 - (A) taxiing,
 - (B) sailing,

- (C) docking,
- (D) takeoffs, and
- (E) landings, and
- (F) as conditions exist, operations on glassy water, rough water and in crosswind conditions.

(b) Skill

Within the 12 months preceding the date of application for a seaplane rating, an applicant shall have successfully completed a qualifying flight under the supervision of a Transport Canada Inspector or a person qualified in accordance with CAR 425.21(6) by demonstrating the level of skill specified in the Instructor Guide - Seaplane Rating (TP12668).

(amended 2000/09/01)

(c) Credits for DND Applicants

(amended 1998/03/23)

Active and retired personnel of the Canadian Forces who are qualified to the pilot aeroplane wings standard shall be deemed to have satisfied the seaplane training requirements specified above, provided that the applicant:

- (i) has completed not less than 50 hours flight time as pilot-in-command in seaplanes during the 12 months preceding the date of application for the rating, or
- (ii) has met the prescribed standard of the Canadian Forces to act as pilot-in-command of seaplanes during the 24 months preceding the date of application for the rating.

(d) Credits for Foreign Applicants

(amended 1998/03/23)

The holder of a pilot licence — aeroplane category, issued by a Contracting State, shall be deemed to have met the seaplane training requirements specified above, provided that the applicant:

- (i) has completed a minimum of 50 hours flight time as pilot-in-command in seaplanes during the 12 months preceding the date of application for the rating, or
- (ii) has met the prescribed standards of the State concerned, to act as pilot-in-command of seaplanes during the 12 months preceding the date of application for the rating.

(2) Landplane Rating - Requirements**(a) Experience**

An applicant for a landplane rating shall complete the following:

- (i) a total of 3 hours of landplane training including:
 - (A) a minimum of 2 hours dual instruction, and
 - (B) a minimum of 5 takeoffs and five landings as sole occupant of the aeroplane.
- (ii) The following exercises shall be included in the landplane training:
 - (A) taxiing,
 - (B) landings, including crosswind landings, and
 - (C) takeoffs.

(b) Credits for DND Applicants

Active and retired personnel of the Canadian Forces who are qualified to the pilot aeroplane wings standard shall be deemed to have satisfied the landplane training requirements specified above, provided that the applicant:

- (i) has completed not less than 50 hours flight time as pilot-in-command in landplanes during the 12 months preceding the date of application for the rating, or
- (ii) has met the prescribed standard of the Canadian Forces to act as pilot-in-command of landplanes during the 24 months preceding the date of application for the rating.

(c) Credits for Foreign Applicants

The holder of a pilot licence — aeroplane category, issued by a Contracting State shall be deemed to have met the landplane training requirements specified above, provided that the applicant:

- (i) has completed a minimum of 50 hours flight time as pilot-in-command in landplanes during the 12 months preceding the date of application for the rating, or
- (ii) has met the prescribed standards of the State concerned, to act as pilot-in-command of landplanes during the 12 months preceding the date of application for the rating.

(3) Multi-engine Class Rating - Requirements

(a) Skill

An applicant for a multi-engine class rating shall successfully complete a flight test as pilot-in-command of a multi-engine class aeroplane, in accordance with Schedule 7 "Flight Test for the Issuance of a Multi-Engine Class Rating – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(b) Credits for DND Applicants

Active and retired personnel of the Canadian Forces who are qualified to the pilot aeroplane wings standard shall be considered to have satisfied the skill requirements as set forth above, provided that the applicant:
(amended 1999/03/01)

- (i) has acquired a minimum of 50 hours flight time as pilot-in-command in multi-engine aeroplanes during the 24 months preceding the date of application for the rating, or
- (ii) has met the prescribed standards of the Canadian Forces to act as pilot-in-command of multi-engine aeroplanes during the 24 months preceding the date of application for the rating.

(c) Credits for Foreign Applicants

The holder of a pilot licence — Aeroplane issued by a Contracting State shall be considered to have satisfied the skill requirements as set forth above, provided that the applicant:
(amended 1999/03/01)

- (i) has acquired a minimum of 50 hours flight time as pilot-in-command in multi-engine aeroplanes during the 12 months preceding the date of application for the rating, or
- (ii) has met the prescribed standards of the State concerned for issue of a multi-engine class rating during the 12 months preceding the date of application for the rating.

(4) Multi-engine Centre Line Thrust Class Rating - Requirements

(amended 1999/03/01)

(a) Skill

(amended 1999/03/01)

An applicant for a multi-engine centre line thrust class rating shall successfully complete a flight test as pilot-in-command of a multi-engine centre line thrust class aeroplane, in accordance with Schedule 7 "Flight Test for the Issuance of a Multi-Engine Class Rating – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(b) Credits for DND Applicants

(amended 1999/03/01)

Active and retired personnel of the Canadian Forces who are qualified to the pilot aeroplane wings standard shall be considered to have satisfied the above skill requirement, provided that the applicant

(amended 1999/03/01)

(i) has acquired a minimum of 50 hours flight time as pilot-in-command in multi-engine centre line thrust aeroplanes during the 24 months preceding the date of application for the rating, or

(amended 1999/03/01)

(ii) has met the prescribed standards of the Canadian Forces to act as pilot-in-command of multi-engine centre line thrust aeroplanes during the 24 months preceding the date of application for the rating.

(amended 1999/03/01)

(c) Credits for Foreign Applicants

(amended 1999/03/01)

The holder of a pilot licence — Aeroplane issued by a Contracting State shall be considered to have satisfied the above skill requirement, provided that the applicant

(amended 1999/03/01)

(i) has acquired a minimum of 50 hours flight time as pilot-in-command in multi-engine centre line thrust aeroplanes during the 12 months preceding the date of application for the rating, or

(amended 1999/03/01)

(ii) has met the prescribed standards of the State concerned, for issue of a multi-engine centre line thrust class rating during the 12 months preceding the date of application for the rating.

(amended 1999/03/01)

DIVISION XI - AIRCRAFT TYPE RATINGS

421.40 *Blanket and Individual Type Ratings*

Where an applicant has met the applicable requirements for issuance, the following Permits and Licences may be endorsed with the indicated Type Ratings:

Type of Permit or Licence	Blanket Type Rating	Individual Type Rating
Pilot Permits		
Gyroplane	all single seat gyroplanes	each type of gyroplane other than single seat gyroplanes medically restricted
Ultra-Light Aeroplane	all ultra-light aeroplanes (amended 1998/03/23)	medically restricted (amended 1998/03/23)
Recreational - Aeroplane	blanket	medically restricted
Recreational - Helicopter	none	each type of helicopter medically restricted
Pilot Licence		
Glider	all gliders (amended 1998/03/23)	medically restricted (amended 1998/03/23)
Balloon	all non-power driven balloons	each type of power driven balloon or airship medically restricted
Private Pilot Licence		
Aeroplane	all aeroplanes with a minimum flight crew requirement of one pilot, excluding high performance (normally combined with an aeroplane class rating)	individual type aeroplanes two crew aeroplanes high performance aeroplanes medically restricted
Helicopter	none	each type of helicopter two crew helicopter medically restricted
Commercial Pilot Licence		
Aeroplane	all aeroplanes with a minimum flight crew requirement of one	individual type aeroplanes

Type of Permit or Licence	Blanket Type Rating	Individual Type Rating
	pilot, excluding high performance (normally combined with an aeroplane class rating)	two crew aeroplanes two crew aeroplanes with cruise relief only high performance aeroplanes medically restricted
Helicopter	none	each type of helicopter two crew helicopter medically restricted
Airline Transport Pilot Licence		
Aeroplane	all aeroplanes with a minimum flight crew requirement of one pilot, excluding high performance (normally combined with an aeroplane class rating)	individual type aeroplanes two crew aeroplanes two crew aeroplanes with cruise relief only high performance aeroplanes medically restricted
Helicopter	none	each type of helicopter two crew helicopter medically restricted
Flight Engineer	none	individual type aeroplanes individual type aeroplanes with second officer rating medically restricted

(1) Blanket Type Ratings

Except where a licence is restricted to an individual aircraft type or types, blanket aircraft type ratings are issued automatically with the issue of the appropriate licence, as follows:

(a) Aeroplanes

All aeroplanes with a minimum flight crew requirement of one pilot excluding high performance;

NOTE: When the aeroplane blanket rating is endorsed on a licence it is normally combined with an aeroplane class rating; e.g. "all single pilot, non-high performance single engine land aeroplanes".

(b) Gliders

All gliders;
(amended 1998/03/23)

(c) Balloons

All non-power driven balloons;

(d) Ultra-Light Aeroplanes

All ultra-light aeroplanes;
(amended 1998/03/23)

(e) Gyroplanes

All single seat gyroplanes.

(2) Individual Type Ratings

An individual aircraft type rating is issued for aircraft not included in a blanket type rating. It is indicated by the appropriate aircraft type designator from Appendix A found at the end of this Subpart, endorsed on a permit or licence as follows:
(amended 2005/12/01)

(a) Aeroplanes

- (i) each aeroplane with a minimum flight crew requirement of at least two pilots;
- (ii) each aeroplane with a minimum flight crew requirement of at least two pilots utilizing a cruise relief pilot;
- (iii) each high performance aeroplane type to be endorsed on a pilot licence — aeroplane category;
- (iv) each aeroplane type to be endorsed on a flight engineer licence;
- (v) each aeroplane type to be endorsed on a second officer rating; and
- (vi) each aeroplane type to be endorsed on a licence for which no blanket type rating is issued.
(amended 2005/06/01)

(b) Helicopters

Each type of helicopter;

(c) Balloons

(amended 1998/03/23)

Each type of power driven balloon or airship;

(d) Gyroplanes

(amended 1998/03/23)

Each type of gyroplane other than single seat gyroplanes;

(e) Restricted Licence

(amended 1998/03/23)

Individual aircraft type ratings shall be issued for certain medically restricted licences.

(3) Individual Type Rating Requirements**(a) Aeroplane - Two Crew****(i) Knowledge**

An applicant for an individual aircraft type rating for aeroplanes with a minimum flight crew requirement of at least two pilots shall have completed a program of ground school instruction and flight training on the aeroplane type, and

(amended 2006/12/14)

Private Pilot Licence — Aeroplane or Commercial Pilot Licence — Aeroplane

(A) in the case of the holder of a Private Pilot Licence — Aeroplane or Commercial Pilot Licence — Aeroplane, within the 24 months preceding the application for the first endorsement of the two crew rating, an applicant shall have obtained a minimum score of 70 percent (70%) on the Type Rating-Aeroplane (IATRA) written examination;

(amended 2001/03/01)

Airline Transport Pilot Licence — Aeroplane

(B) in the case of the applicant who has obtained a minimum score of 70 percent (70%) on the Airline Transport Pilot Licence — Aeroplane written examinations (SAMRA and SARON) within the 24 months preceding the application for the endorsement of the rating, the written examination requirement shall be considered to have been met; or

(amended 2001/03/01)

(C) in the case of the holder of an Airline Transport Pilot Licence — Aeroplane, the written examination requirement shall be considered to have been met, or

(amended 2006/12/14)

(D) in the case of an applicant who completed the airline transport pilot licence (ATP(A)) integrated course and who completed the Airline Transport Pilot Licence — Aeroplane written examinations within the five-year period immediately preceding the application for endorsement of the rating, the written examination requirement shall be considered to have been met.

(amended 2006/12/14)

(ii) Experience

An applicant shall have completed flight training on the aeroplane type and have completed a minimum of 250 hours pilot flight time on aeroplanes.

(iii) Skill

The applicant shall comply with one of the following requirements:
(amended 2005/12/01)

(A) An applicant shall have passed a pilot proficiency check conducted in accordance with Part VII of the *Canadian Aviation Regulations* for that aeroplane type within the 12 months preceding the application for the rating or passed a pilot proficiency check acceptable to the Minister for that aeroplane type within 12 months preceding the application for the rating;
(amended 2005/12/01)

(B) An applicant who successfully completes a Line Operational Evaluation (LOE) from an approved Advanced Qualification Program (AQP) within the 12 months preceding the application for the rating shall be considered to have met the pilot proficiency check requirement pursuant to Part VII of the *Canadian Aviation Regulations*; or
(amended 2005/12/01)

(C) When employed by the holder of a private operator certificate issued pursuant to section 604.03 of the *Canadian Aviation Regulations*, an applicant shall have successfully completed the operator's training and proficiency program and be certified proficient for operations by the chief pilot within the 12 months preceding the application.
(amended 2005/12/01)

(b) Aeroplane - Two Crew - Restricted to Cruise Relief Pilot Duties Only
(amended 1998/03/23)

(i) Prerequisite

An applicant for an individual aircraft type rating - restricted to cruise relief pilot duties only for aeroplanes with a minimum flight crew requirement of at least two pilots shall hold a Commercial Pilot Licence - Aeroplane, or an Airline Transport Pilot Licence - Aeroplane, and a Group 1 Instrument Rating.
(amended 1998/03/23)

(ii) Knowledge

An applicant for an individual aircraft type rating - restricted to cruise relief pilot duties only for aeroplanes with a minimum flight crew requirement of at least two pilots shall have completed a program of ground and flight training on the aeroplane type, and
(amended 1998/03/23)

Commercial Pilot Licence - Aeroplane

(A) in the case of the holder of a Commercial Pilot Licence - Aeroplane, within the 24 months preceding the application for the first endorsement of a two crew rating, an applicant shall have obtained a minimum score of 70 percent (70%) on the Type Rating - Aeroplane (IATRA) examination;
(amended 2001/03/01)

Airline Transport Pilot Licence - Aeroplane

(B) in the case of the applicant who has obtained a minimum score of 70 percent (70%) on the Airline Transport Pilot Licence - Aeroplane written examinations (SAMRA and SARON) within the 24 months preceding the application for the endorsement of the rating, the written examination requirement shall be considered to have been met; or
(amended 2001/03/01)

(C) in the case of the holder of an Airline Transport Pilot Licence - Aeroplane, the written examination requirement shall be considered to have been met.
(amended 2001/03/01)

(iii) Experience

An applicant shall have completed flight training on the aeroplane type and have completed a minimum of 250 hours flight time on aeroplanes.
(amended 1998/03/23)

(iv) Skill

An applicant shall have passed a pilot proficiency check conducted in accordance with Part VI or Part VII, excluding the takeoffs and landings, for that aeroplane type within the 12 months preceding the application for the rating or passed a pilot proficiency check acceptable to the Minister for that aeroplane type within 12 months preceding the application for the rating.
(amended 2000/09/01)

(c) High Performance Aeroplane**(i) Knowledge**

An applicant for an individual aircraft type rating for a high performance aeroplane shall have completed ground training on the aeroplane type.

(ii) Experience

An applicant shall have completed flight training and have acquired a minimum of 200 hours pilot flight time on aeroplanes.

(iii) Skill

Within the 12 months preceding the date of application for the rating, an applicant shall have successfully completed a qualifying flight under the supervision of a Transport Canada Inspector or a person qualified in accordance with CAR 425.21(7)(a).

(amended 1999/03/01)

(d) Flight Engineer**(i) Experience**

An applicant for an individual aircraft type rating to be endorsed on a Flight Engineer Licence shall have passed an approved course of training, within the 12 months preceding the application for the rating.

(ii) Skill

An applicant shall have passed a Flight Engineer proficiency check on the aeroplane type, within the 12 months preceding the application for the rating.

(e) Second Officer**(i) Experience**

An applicant for an individual aircraft type rating for an aeroplane type associated with a Second Officer rating shall have passed within the 12 months preceding the application for the rating, a course of training relating to that aircraft type that is administered by an institution recognized by the Minister as being qualified to administer such training.

(ii) Skill

An applicant shall have passed a Second Officer proficiency check on the aeroplane type.

(f) Helicopter - Two Pilots**(i) Knowledge**

An applicant for an individual aircraft type rating for a helicopter with a minimum flight crew requirement of at least two pilots shall have completed a program of ground and flight training on the helicopter type and

Private Pilot Licence - Helicopter or Commercial Pilot Licence - Helicopter

(A) in the case of the holder of a Private Pilot Licence - Helicopter or a Commercial Pilot Licence - Helicopter, within the 24 months preceding the application for the first endorsement of a two crew rating, an applicant shall have obtained a minimum score of 70 percent (70%) on the Type Rating - Helicopter (HATRA) examination;

(amended 2001/03/01)

Airline Transport Pilot Licence - Helicopter

(B) in the case of the applicant who has obtained a minimum score of 70 percent (70%) on the Airline Transport Pilot Licence - Helicopter written examinations (HAMRA and HARON) within the 24 months preceding the application for the endorsement of the rating, the written examination requirement shall be considered to have been met; or
(amended 2001/03/01)

(C) in the case of the holder of an Airline Transport Pilot Licence - Helicopter, the written examination requirement shall be considered to have been met.
(amended 2001/03/01)

(ii) Experience

An applicant shall have completed flight training on the helicopter type and have completed a minimum of 166 hours pilot flight time on helicopters.
(amended 2000/09/01)

(iii) Skill

An applicant shall have passed a pilot proficiency check conducted in accordance with Part VII for that helicopter type within the 12 months preceding the application for the rating or passed a pilot proficiency check acceptable to the Minister for that helicopter type within 12 months preceding the application for the rating.
(amended 2000/09/01)

(iv) Restricted Type Rating

(amended 1998/03/23)

Where an applicant has not met the knowledge requirement specified in (i) above, the type rating shall be issued with a restriction as follows:

“SK61 (or applicable type) restricted to Aerial Work - Canada and USA Only”.

The restriction shall be removed upon completion of the knowledge requirement.

(v) An applicant for an individual aircraft type rating that is certificated as “single pilot VFR and two pilots IFR” who does not meet the above requirements, shall be issued a restricted helicopter type rating.
(amended 1999/03/01)

(vi) When all of the requirements for the two pilot helicopter rating have been met, the restriction shall be removed.
(amended 1999/03/01)

(g) Helicopter - One Pilot

Within the 12 months preceding the application for the rating, an applicant for an individual aircraft type rating for a helicopter with a minimum flight crew requirement of one pilot shall have successfully completed:

(amended 1999/03/01)

- (i) a flight test, on the helicopter type, for the issue of a Private or Commercial Pilot Licence - Helicopter;
- (ii) a Pilot Proficiency Check on the helicopter type; or
- (iii) a qualifying flight under the supervision of a person qualified in accordance with CAR 425.21(7)(b).

(amended 1999/03/01)

(h) Glider - Motor-driven Touring

[Reserved]

(i) Airship or Powered Balloon**(i) Experience**

An applicant shall complete flight experience on the type of airship or powered balloon for which application is made.

(ii) Skill

The applicant shall provide a letter of recommendation, in accordance with the skill requirement for the issuance of a Pilot Licence - Balloon, from a balloon flight instructor whose licence is endorsed for the particular airship type or powered balloon, as the case may be.

(j) Advanced Ultra-light Aeroplane

[Reserved]

(k) Gyroplane - Two-Seat

Within the 12 months preceding the application for rating, an applicant for an individual aircraft type rating for a gyroplane having more than one seat shall have successfully completed:

(amended 1999/03/01)

- (i) a flight test, on the gyroplane type, for the issue of a Pilot Permit - Gyroplane; or
- (ii) a qualifying flight under the supervision of a person qualified in accordance with CAR 425.21(7)(c).

(amended 1999/03/01)

(l) Any Other Individual Aircraft Type Rating

An applicant for any other individual aircraft type ratings shall have, within the 12 months preceding the application for rating, performed a qualifying flight under the supervision of a person who has been delegated the authority to supervise a qualifying flight.

(4) Credits for DND Applicants

(a) Active and retired members of the Canadian Armed Forces who are qualified to wings standard shall be deemed to have met the qualifying flight requirement specified in 3(c)(iii), 3(g)(iii), 3(k)(ii), and 3(l) above provided the applicant:

(amended 1998/03/23)

(i) has acquired a minimum of 10 hours pilot-in-command flight time on the appropriate aircraft type during the 24 months preceding the application for rating, or
(amended 1998/03/23)

(ii) has qualified as pilot-in-command on the aircraft type during the 24 months preceding the application for rating.

(amended 1998/03/23)

(b) Active and retired members of the Canadian Armed Forces who are qualified to wings standard shall be deemed to have met the Pilot Proficiency Check requirement specified in 3(a)(iii), 3(b)(iii), 3(f)(iii), and 3(g)(ii) above provided the applicant:

(amended 1998/03/23)

(i) has acquired a minimum of 50 hours flight time on the appropriate aircraft type during the 24 months preceding the application for rating, or

(amended 1998/03/23)

(ii) has qualified as pilot-in-command on the aircraft type during the 24 months preceding the application for rating.

(amended 1998/03/23)

(5) Credits for Foreign Applicants

(a) Qualifying Flight Requirement

(amended 2000/09/01)

The holder of a licence issued by a Contracting State shall be considered to have met the qualifying flight requirement specified in 3(c)(iii), 3(g)(iii), 3(k)(ii), and 3(l) above provided the applicant has acquired a minimum of 10 hours pilot-in-command flight time on the appropriate aircraft type during the 12 months preceding the application for rating;
(amended 2005/06/01)

(b) Pilot Proficiency Check Requirement

The holder of a licence with a two-crew type rating issued by a Contracting State shall be considered to have met the Pilot Proficiency Check requirement specified in 3(a)(iii), 3(b)(iii), 3(f)(iii), and 3(g)(ii) above provided the applicant has acquired a minimum of 50 hours flight time on that aircraft type during the 12 months preceding the application for the rating.

(amended 2005/06/01)

(6) Credits for Foreign Flight Test

(amended 2005/06/01)

(a) The qualifying flight requirement specified in subparagraphs 3(c)(iii), 3(g)(iii), 3(k)(ii), and 3(l) above may be performed under the supervision of a qualified person who is licensed by a Contracting State provided the applicant submits a letter from the State's Licensing Authority, or other source acceptable to the Minister confirming the personal log entry, and the qualification of the person who supervised the flight;

(amended 2005/06/01)

(b) The Pilot Proficiency Check requirement specified in subparagraphs 3(a)(iii), 3(b)(iii), 3(f)(iii), and 3(g)(ii) may be performed by a person authorized by a Contracting State provided the applicant submits confirmation from the State's Licensing Authority, or other source acceptable to the Minister confirming that the applicant meets the State's skill test requirement for the issue of the type rating.

(amended 2005/06/01)

(7) Aircraft Type

(amended 1998/03/23)

For issue of an individual aircraft type rating, the aircraft type shall be registered in the Canadian Civil Aircraft Register, except:

(amended 1998/03/23)

(a) aircraft purchased abroad where a provisional Canadian certificate of registration has been issued;

(amended 1998/03/23)

(b) aircraft manufactured in Canada where no type approval has yet been issued, but a certification flight test program is being conducted; or

(amended 1998/03/23)

NOTE: Aircraft type ratings under 6(b) may be issued only to flight test pilots and flight engineers employed by the manufacturer, or by Transport Canada.

(amended 1998/03/23)

(c) aircraft not registered in the Canadian Civil Aircraft Register where a Canadian type approval, or a Canadian approved type certificate has been issued.

(amended 1998/03/23)

DIVISION XII - NIGHT RATING

421.42 *Requirements*

(1) Private Pilot Licence - Aeroplane

(a) Experience

An applicant for a night rating shall have acquired in aeroplanes a minimum of 20 hours of pilot flight time which shall include a minimum of:

(i) 10 hours of night flight time including a minimum of:

(A) 5 hours dual flight time, including 2 hours of cross-country flight time, and

(B) 5 hours solo flight time, including 10 takeoffs, circuits and landings; and

(ii) 10 hours dual instrument time.

(iii) Credit for a maximum of 5 hours of the 10 hours of dual instrument time may be given for instrument ground time, provided that the total instrument time shall be in addition to the 10 hours night flight time in subparagraph (a)(i) above.

(amended 1998/03/23)

(b) Skill

Within the 12 months preceding the date of application for a night rating, an applicant shall have successfully completed a qualifying flight under the supervision of a Transport Canada Inspector or a person qualified in accordance with subsection 425.21(4) by demonstrating the level of skill specified in the Flight Instructor Guide-Aeroplane (TP 975).

(amended 2000/09/01)

(c) Credits

An applicant who holds a licence endorsed with a night rating in one of the other aircraft categories shall have the total 20 hour pilot flight time reduced to a minimum of 5 hours in aeroplanes including a minimum of:

(i) 2 hours dual night flight time,

(ii) 1 hour solo night flight time, and

(iii) 1 hour dual instrument flight time which shall be in addition to the flight time of (i) and (ii).

(2) Private Pilot Licence - Helicopter**(a) Experience**

An applicant for a night rating shall have acquired in helicopters a minimum of 20 hours of pilot flight time which shall include a minimum of:

- (i) 10 hours of night flight time including a minimum of:
 - (A) 5 hours dual flight time, including 2 hours of cross-country flight time, and
 - (B) 5 hours solo flight time, including 10 takeoffs, circuits and landings; and
 - (ii) 10 hours dual instrument time.
 - (iii) Credit for a maximum of 5 hours of the 10 hours of dual instrument time may be given for instrument ground time, provided the total instrument time is in addition to the 10 hours night flight time in subparagraph (a)(i) above.
- (amended 1999/03/01)

(b) Skill

Within the 12 months preceding the application for a night rating, an applicant shall have successfully completed a qualifying flight under the supervision of a Transport Canada Inspector or a person qualified in accordance with subsection 425.21(4).

(amended 2000/09/01)

(c) Credits

An applicant who holds a licence endorsed with a night rating in one of the other aircraft categories shall have the total 20 hour pilot flight time reduced to a minimum of 5 hours in helicopters including a minimum of:

- (i) 2 hours dual night flight time,
- (ii) 1 hour solo night flight time, and
- (iii) 1 hour dual instrument flight time which shall be in addition to the flight time of (i) and (ii).

(3) Pilot Permit - Gyroplane**(a) Experience**

An applicant for a night rating shall have acquired in gyroplanes a minimum of 20 hours of pilot flight time which shall include a minimum of:

- (i) 10 hours of night flight time including a minimum of:
 - (A) 5 hours dual flight time, including 2 hours of cross-country flight time, and
 - (B) 5 hours solo flight time, including 10 takeoffs, circuits and landings; and
- (ii) 10 hours dual instrument time.

(iii) Credit for a maximum of 5 hours of the 10 hours of dual instrument time may be given for instrument ground time, provided the total instrument time shall be in addition to the 10 hours night flight time in subparagraph (a)(i) above.
(amended 1999/03/01)

(b) Skill

Within the 12 months preceding the application for a night rating, an applicant shall have successfully completed a qualifying flight under the supervision of a Transport Canada Inspector or a person qualified in accordance with subsection 425.21(4).
(amended 2000/09/01)

(c) Credits

An applicant who holds a licence endorsed with a night rating in one of the other aircraft categories shall have the total 20 hour pilot flight time reduced to a minimum of 5 hours in gyroplanes including a minimum of:

- (i) 2 hours dual night flight time,
- (ii) 1 hour solo night flight time, and
- (iii) 1 hour dual instrument flight time which shall be in addition to the flight time of (i) and (ii).

(4) Pilot Licence - Balloon

An applicant for a night rating shall have completed in balloons a minimum of:
(amended 2005/12/01)

(a) 1 dual and 1 solo ascent by night; and

(b) a minimum of 4 hours of night flight time under the direction and supervision of the holder of a Flight Instructor Rating - Balloon, endorsed for night flying and for the Balloon type.

DIVISION XIII - VFR OVER-THE-TOP RATING

421.44 Requirements

(1) General

A VFR OTT rating may be issued for either the aeroplane or helicopter category. Once an applicant has obtained the VFR OTT privileges in one category, those privileges may also be attached to a licence held in the other category.
(amended 2000/09/01)

(2) Knowledge

(amended 2000/09/01)

An applicant for a VFR OTT rating shall acquire a standard of knowledge in accordance with the Flight Instructor Standard - VFR OTT.

(3) Experience

(amended 2000/09/01)

An applicant for a VFR OTT rating shall complete a minimum of 15 hours dual instrument time of which a maximum of 5 hours may be instrument ground time. Training shall be in accordance with the Flight Instructor Standard - VFR OTT.

(4) Skill

(amended 2000/09/01)

An applicant for a VFR OTT rating shall have reached the level of skill specified in the Flight Instructor Standard - VFR OTT.

(5) Credits

(amended 2000/09/01)

An applicant for a VFR OTT rating who holds or has held an instrument rating shall be considered to have met the Knowledge, Experience and Skill Requirements specified above, and shall be issued a VFR OTT rating upon request.

(amended 1999/03/01)

(6) Credits for DND Applicants

(amended 2000/09/01)

An applicant who holds or has held an Instrument Rating issued by the Canadian Forces shall be considered to have met the Knowledge, Experience and Skill requirements specified above.

(amended 1999/03/01)

(7) Credits for Foreign Applicants

(amended 2000/09/01)

An applicant who holds or has held an instrument rating issued by a Contracting State shall be considered to have met the Knowledge, Experience and Skill requirements specified above.

(amended 1999/03/01)

DIVISION XIV - INSTRUMENT RATINGS

421.46 *Requirements*

(1) **General**

An instrument rating is issued for aircraft in one of the following groups:

- (a) Group 1 for all aeroplanes where the flight test was conducted in a multi-engine aeroplane,
- (b) Group 2 for multi-engine centre line thrust and single engine aeroplanes where the flight test was conducted in a multi-engine centre line thrust aeroplane,
- (c) Group 3 for single engine aeroplanes where the flight test was conducted in a single engine aeroplane, and
- (d) Group 4 for helicopters where the flight test was conducted in a helicopter.

(2) **Requirements**

(a) **Knowledge**

An applicant shall have obtained a minimum of 70% on the written examination Instrument Rating (INRAT) which shall include the following subjects:

- (i) *Canadian Aviation Regulations*;
- (ii) Instrument Flight Rules and Procedures;
- (iii) Meteorology;
- (iv) Instruments;
- (v) Radio and Radar systems; and
- (vi) Navigation.

(b) **Experience**

An applicant shall have completed a minimum of:

- (i) 50 hours of cross-country flight as pilot-in-command in aeroplanes or helicopters of which 10 hours must be in the appropriate category; and
- (ii) 40 hours of instrument time of which a maximum of 20 hours may be instrument ground time. The 40 hours instrument time shall include a minimum of:
 - (A) 5 hours of dual instrument flight time acquired from the holder of a flight instructor rating ,
 - (B) 5 hours in aeroplanes where the applicant is applying for a Group 1, 2 or 3 instrument rating or in helicopters where the applicant is applying for a Group 4 instrument rating,

(C) Fifteen (15) hours of dual instrument flight time provided by a qualified person as specified in section 425.21(9); and
(amended 1998/03/23)

(D) one dual cross-country flight under simulated or actual IMC conditions of a minimum of 100 nautical miles, the flight to be conducted in accordance with an IFR flight plan to include at, two different locations, an instrument approach to minima.

(c) Skill

(i) Subject to paragraph (ii), an applicant shall successfully complete:
(amended 2012/02/19)

(A) a flight test as pilot-in-command of an aeroplane or helicopter, in accordance with Schedule 8 “Flight Test for the Issuance or Renewal of an Instrument Rating” of Standard 428 — *Conduct of Flight Tests*, or
(amended 2012/02/19)

(B) a Pilot Proficiency Check (PPC) for operations under IFR in accordance with Part VI or Part VII, as applicable.
(amended 2012/02/19)

(ii) An applicant who successfully completes a Line Operational Evaluation (LOE) from an approved Advanced Qualification Program (AQP) is deemed to have met the requirement of clause (B).
(amended 2012/02/19)

(3) Credits for DND Applicants

(a) The experience requirements specified in sub-paragraph 2(b) above may be acquired under the instruction of equivalent military personnel.

(b) The flight test specified in paragraph (c) shall be deemed to have been met for Canadian Forces personnel who:
(amended 1998/09/01)

- (i) have reached wings standard;
- (ii) hold an unrestricted Canadian Forces instrument rating appropriate to the class and type of aircraft; and
- (iii) have met the experience requirements specified in subsection 2.

(4) Foreign Applicants

The experience requirements specified in subparagraph 2(b) may be acquired under the instruction of foreign instructors with qualifications equivalent to those specified in Subpart 5.

421.48 *Period of Validity*

(1) 24 months calculated to the first day of the twenty-fifth month following the month in which the flight test was conducted.

(2) An instrument rating may be issued for a period of less than twenty four months.

421.49 *Renewal of Instrument Rating*

(1) An applicant for the renewal of an instrument rating shall successfully complete the flight test referred to in paragraph 421.46(2)(c).

(amended 1999/03/01)

(2) An applicant who successfully completes a Line Operational Evaluation (LOE) from an approved Advanced Qualification Program (AQP) shall be considered to have met the pilot proficiency check requirement pursuant to Part VII of the *Canadian Aviation Regulations*.

(amended 2005/12/01)

(3) An applicant for the renewal of an instrument rating, who is employed by the holder of a private operator certificate issued pursuant to section 604.03 of the *Canadian Aviation Regulations*, with a pilot training and proficiency certification program, shall successfully complete that program and be certified proficient for operations under IFR by the chief pilot.

(amended 2005/12/01)

Note: For the purpose of subsections (2) and (3), the chief pilot's assessment of an applicant's competence and proficiency shall be based on the mandatory items set out in TP 9939 Flight Test Standards - Instrument Ratings and, or TP 6533 - Approved Check Pilot Manual Chapter 10 - Assessment Standards.

(amended 2005/12/01)

(4) An applicant for the renewal of an instrument rating that expired more than 24 months before the date of application, shall:

(amended 1999/03/01)

(a) successfully complete the flight test referred to in paragraph 421.46(2)(c); and

(amended 1999/03/01)

(b) obtain a minimum of 70% in the written examination (INRAT) described in CAR 421.46(2)(a) - Knowledge Requirement.

(amended 1999/03/01)

(5) An applicant who holds a Canadian Forces unrestricted instrument rating and whose civil instrument rating expired more than 24 months before the date of application, shall be considered to have met the INRAT examination requirement, provided that:

(a) the applicant holds a valid pilot licence; and

(b) the Canadian Forces flight test for renewal was done in a multi-engine aeroplane if a Group 1 instrument rating is held, in a single-engine aeroplane if a Group 3 instrument rating is held or in a helicopter if a Group 4 instrument rating is held.
(amended 2000/09/01)

(6) An applicant who holds a Canadian Commercial Pilot Licence or Airline Transport Pilot Licence and whose instrument rating expired more than 24 months before the date of application, is considered to have met the INRAT examination requirement, provided that the applicant:
(amended 2005/12/01)

(a) holds a Commercial Pilot Licence or Airline Transport Pilot Licence issued by a Contracting State;
(amended 1999/03/01)

(b) holds an instrument rating issued by a Contracting State; and
(amended 1999/03/01)

(c) successfully completes, within the 12 months preceding the date of application for the rating, an instrument flight test while working for hire or reward in a commercial operation while outside of Canada, and provides the Minister with a copy of:
(amended 2005/12/01)

(i) the foreign flight test record;
(amended 2005/12/01)

(ii) the foreign licence, providing it indicates that the instrument flight test was completed within the 12 months preceding the date of application for the rating; or
(amended 2005/12/01)

(iii) a letter from the foreign aviation authority attesting to the successful completion of an instrument flight test within the 12 months preceding the date of application for the rating.
(amended 2005/12/01)

(7) An applicant who holds a Second Officer Rating or a Flight Engineer Licence and whose instrument rating expired more than 24 months before the date of application, shall be considered to have met the INRAT examination requirement provided that:
(amended 2000/09/01)

(a) the applicant works for hire or reward for a Canadian Air Carrier that operates aircraft requiring a Second Officer or a Flight Engineer; and
(amended 1999/03/01)

(b) the applicant, on commencement of work as a Second Officer or Flight Engineer, held an Instrument Rating and a Commercial Pilot Licence - Aeroplane.
(amended 1999/03/01)

(8) [deleted 2008/05/01]

(9) A flight test for the renewal of an instrument rating may be conducted within the 90 day period prior to the valid to date of the existing rating. In this case, the renewed rating shall be valid to the same date as if the flight test was done during the month prior to the valid to date of the existing rating.

(amended 2000/09/01)

DIVISION XV - SECOND OFFICER RATING

421.52 Requirements

(1) Knowledge/Experience

An applicant shall provide evidence of having successfully completed a Second Officer training program during the 12 months preceding the date of application.

(2) Skill

An applicant shall provide the report of a Second Officer proficiency check conducted during the 12 months preceding the date of application in the aeroplane type or approved aeroplane type simulator to be endorsed on the licence.

***NOTE:** A Second Officer Rating does not, in itself, convey any pilot privileges upon the licence holder.*

DIVISION XVI – PASSENGER-CARRYING RATING – ULTRA-LIGHT AEROPLANE

(amended 2005/12/01)

421.55 Requirements

(amended 2005/12/01)

(1) Medical Fitness

(a) An applicant holds a Category 4 Medical Certificate valid for a Pilot Permit - Ultra-light Aeroplane.

(b) An applicant who meets the medical conditions specified on the Civil Aviation Medical Declaration and has signed it is considered to have met the Category 4 Medical Standards, providing a physician licensed to practice medicine in Canada has signed Part C of the declaration.

(c) The medical validity period for the permit holder under 40 years of age is 60 months and for a permit holder 40 years of age or over, is 24 months.

(d) The permit is maintained by a valid Category 1, 3, or 4 Medical Certificate.

(2) Experience

(a) An applicant has completed a minimum of 25 hours pilot flight training in ultra-light aeroplanes under the direction and supervision of the holder of a Flight Instructor Rating - Ultra-light Aeroplane or a Flight Instructor Rating- Aeroplane.

(b) The flight training includes a minimum of:

(i) 15 hours dual instruction flight time, including a minimum of 2 hours cross-country flight time, and

(ii) 5 hours solo flight time.

(3) Skill

Within the 12 months preceding the date of application for the rating, an applicant shall successfully complete a flight test as pilot-in-command in accordance with Schedule 1 "Flight Test for the Issuance of a Passenger Carrying Rating – Ultra-light Aeroplane" of Standard 428. — *Conduct of Flight Tests.*
(amended 2012/02/19)

(4) Credits

(a) An applicant who holds a Pilot Licence - Aeroplane or Pilot Permit – Recreational - Aeroplane is considered to have met the skill requirement specified in subsection (3).

(b) Until December 31, 2006, an applicant who holds a Flight Instructor Rating - Ultra-light Aeroplane, is considered to have met the experience and the skill requirements specified in subsections (2) and (3).

421.56 to 421.60 *Reserved*
(amended 2005/12/01)

**DIVISION XVII - FLIGHT INSTRUCTOR
RATINGS - AEROPLANE AND HELICOPTER**

421.62 *Class 4 Supervision Requirement*

The holder of a Class 4 Flight Instructor Rating shall be under the supervision of the holder of a Class 1 or 2 Flight Instructor Rating, in the applicable category, and shall submit for review to the supervising instructor the following:

(1) the training program for each student undergoing training by the holder of a Class 4 Flight Instructor Rating;

(2) flight progress checks for each student at intervals to be specified by the supervising flight instructor, but at least once before the first solo flight and once before the flight test for issue of the pilot licence;

(3) a record of results on the form “Instructor’s Training Record While Under Direct Supervision”; and

(4) the student’s pilot training record for each first solo flight and for each flight test recommendation for approval.

**421.63 *Class 1 or 2 - Supervision of the Holder of
a Class 4 Flight Instructor Rating - Aeroplane and
Helicopter***

When providing direct supervision to the holder of a Class 4 Flight Instructor Rating, the holder of a Class 1 or 2 Flight Instructor Rating - aeroplane or helicopter shall:

(1) review and approve the holder of the Class 4 Flight Instructor Rating’s proposed training program for each student to ensure conformity with the Flight Training Manual and Flight Instructor Guide;

(2) specify the intervals at which progress checks are required, which shall be at least once before the first solo flight and once before the flight test for issue of the pilot licence;

(3) conduct the progress checks specified in (2) above;

(4) approve and countersign the student’s pilot training record for each first solo flight authorized and for each flight test recommended by the holder of a Class 4 Flight Instructor Rating; and

(5) review and certify the holder of a Class 4 Flight Instructor Rating’s “Instructor’s Training Record while under Direct Supervision” form, as to the student’s competency with respect to first solo flights and flight tests for issue of licences.

421.64 *Class 4 - Record Keeping*

The holder of a Class 4 Flight Instructor Rating - aeroplane or helicopter shall maintain a record of results for all students trained on the form “Instructor’s Training Record while under Direct Supervision”.

421.65 *Period of Validity - Aeroplane and Helicopter*

(1) Class 4

The Class 4 Flight Instructor Rating shall be issued valid to the first day of the thirteenth month following the month in which the instructor flight test was conducted.

(2) Class 3

The initial Class 3 Flight Instructor Rating shall be issued valid to the first day of the twenty-fifth month following the month in which the most recent instructor flight test was conducted. (amended 2003/06/01)

(3) Class 2

The Class 2 Flight Instructor Rating shall be issued valid to the first day of the thirty-seventh month following the month in which the instructor flight test was conducted.
(amended 1998/09/01)

(4) Class 1

The Class 1 Flight Instructor Rating shall be issued valid to the first day of the forty-ninth month following the month in which the instructor flight test was conducted.
(amended 1998/09/01)

(5) Aeroplane -Aerobatic

(a) Class 2

The Class 2 Aeroplane Aerobatic Flight Instructor Rating shall be issued valid to the first day of the thirty-seventh month following the month in which the instructor flight test was conducted.
(amended 1999/03/01)

(b) Class 1

The Class 1 Aeroplane Aerobatic Instructor Flight Rating shall be issued valid to the first day of the forty-ninth month following the month in which the instructor flight test is conducted.
(amended 1999/03/01)

421.66 *Renewal of Flight Instructor Rating*

(1) An applicant for renewal of a Flight Instructor Rating - Aeroplane or Helicopter shall have the rating renewed provided that the applicant:
(amended 1999/03/01)

(a) successfully completes a flight test for the appropriate flight instructor rating;
(amended 2000/09/01)

(b) successfully completes a flight instructor refresher course, in which case the rating shall be renewed from the date of the last day of the course. When the last day of the course is within 90 days of the valid to date of the existing rating, the renewed rating shall be valid to the same date as if the refresher course was completed during the month prior to the valid to date of the existing rating; or
(amended 2000/09/01)

(c) in the previous 24 months, has acquired at least 300 hours of flight instructor experience and had, in this period, at least 80% of candidates recommended for the applicable flight tests pass on the first attempt. The renewal shall be based on no fewer than 5 flight tests.
(amended 2000/09/01)

(d) When an instructor flight test for the renewal or upgrade of a flight instructor rating is conducted within the 90 day period prior to the valid to date of the existing rating, the renewed rating shall be valid to the same date as if the flight test was done during the month prior to the valid to date of the existing rating.

(amended 2000/09/01)

(2) Where the applicant has renewed the instructor rating twice consecutively by means other than a flight test, the next renewal shall be through successful completion of a flight test for the appropriate flight instructor rating.

(amended 2000/09/01)

(3)

(a) Where a flight instructor rating is or has been valid within the preceding 12 months, an applicant for renewal shall successfully complete a flight test for the appropriate flight instructor rating.

(amended 2000/09/01)

(b) Where a flight instructor rating has been invalid for more than 12 months but less than 24 months, an applicant for renewal shall:

(amended 1998/09/01)

(i) provide a recommendation from the holder of a Class 1 Flight Instructor Rating in the appropriate category indicating that the applicant is considered competent to undertake an instructor flight test; and

(ii) successfully complete a flight test for the appropriate flight instructor rating.

(amended 2000/09/01)

(c) Where a flight instructor rating has been invalid for more than 24 months, an applicant for renewal shall:

(amended 1998/09/01)

(i) provide a recommendation from the holder of a Class 1 Flight Instructor Rating in the appropriate category indicating that the applicant is considered competent to complete the written examination(s) and undertake an instructor flight test;

(ii) successfully complete the examination requirement set forth under Knowledge for the appropriate flight instructor rating; and

(iii) successfully complete a flight test for the appropriate flight instructor rating.

(amended 2000/09/01)

(4) [deleted 2008/05/01]

421.67 *Flight Test Record*

(amended 1998/03/23)

(1) Maintenance

(amended 1998/03/23)

A flight test record contains, for each candidate recommended for a flight test:
(amended 2006/12/14)

(a) an assessment of the results for each flight test item;

(amended 1998/03/23)

(b) the overall results; and

(amended 1998/03/23)

(c) information on whether or not the candidate successfully completed the flight test.

(amended 2006/12/14)

(2) Evaluation

(amended 1998/03/23)

Follow-up action will be required when a flight test record reflects the following:
(amended 1998/03/23)

(a) more than three failures for the flight test among the last 10 candidates recommended by the flight instructor for issuance of the Pilot Permit -Recreational, Private Pilot Licence or Commercial Pilot Licence; or

(amended 1998/03/23)

(b) more than three failures for the flight test among the last 10 candidates recommended by the flight instructor for issuance of a flight instructor rating; or

(amended 1998/03/23)

(c) more than three failures in total for flight tests referred to in both (a), and (b) , if fewer than 10 candidates have been recommended by the flight instructor.

(amended 2006/12/14)

(3) Follow-up Action

(amended 1998/03/23)

(a) Action will be taken only when the flight test failures can be attributed to the performance of the flight instructor;

(amended 1998/03/23)

(b) Once the causal connection referred to in paragraph (a) is made and the extent of the problem is determined, the Minister shall ensure that a follow-up plan of action designed to assess and effectively deal with the problem is carried out. If the flight training is conducted in accordance with an approved *Flight Training Operations Manual*, the follow-up action plan may be developed and implemented by the Chief Flight Instructor in accordance with the procedures described in that manual;
(amended 2006/12/14)

(c) The plan of action referred to in paragraph (b) shall include, but is not limited to:
(amended 1998/03/23)

(i) observation of in-flight, or ground instruction conducted by the flight instructor;
(amended 1998/03/23)

(ii) consultation with the Chief Flight Instructor where the flight instructor is employed at a flight training unit; and
(amended 1998/03/23)

(iii) remedial flight or ground school instruction from appropriate sources.
(amended 2006/12/14)

(d) After implementation of the plan of action referred to in paragraph (b), if more than two of the next five flight tests result in failures, the flight instructor may be required to complete a flight instructor rating flight test.
(amended 2006/12/14)

DIVISION XVIII - FLIGHT INSTRUCTOR RATING - AEROPLANE

421.69 *Class 4 - Aeroplane - Requirements*

(1) **Prerequisites**

(a) Before commencing flight training for the Class 4 Instructor Rating - Aeroplane, an applicant shall hold a Commercial or Airline Transport Pilot Licence - Aeroplane and have completed either:

(i) a minimum of 200 hours total time including 20 hours instrument time, of which a minimum of 10 hours shall be instrument flight time; or
(amended 2006/12/14)

(ii) the commercial pilot licence - aeroplane/instrument rating (CPL(A)/IR) integrated course.
(amended 2006/12/14)

(b) Before commencing ground school instruction for the Class 4 Instructor Rating - Aeroplane, an applicant shall have successfully completed the written examination and flight test for the Commercial Pilot Licence - Aeroplane.
(amended 2006/12/14)

(2) Knowledge

(a) An applicant shall have completed a minimum of 25 hours of Instructor Rating ground school instruction which shall include:

- (i) practical application of the basic principles of learning and techniques of instruction;
- (ii) preparation and use of lesson plans;
- (iii) procedures for planning and presenting preparatory ground instruction, pre-flight briefings, in-flight instruction, and post-flight debriefings;
- (iv) theory of flight required to teach the air exercises;
- (v) aircraft flight manuals and aircraft operating limits;
- (vi) presentation of pilot decision-making concepts; and
- (vii) the use of the Transport Canada Flight Instructor Guide, Flight Training Manual, *Canadian Aviation Regulations*, Part IV and the appropriate Flight Test schedules and guides.

(amended 2012/02/19)

(b) An applicant shall obtain a minimum of 70% in the written examination Flight Instructor Rating - Aeroplane Class 4 (AIRAF).

(3) Experience

An applicant shall complete in aeroplanes a minimum of 30 hours of dual flight instruction on overall pilot proficiency and the presentation of all exercises set forth in the Flight Instructor Guide and shall include a minimum of 5 hours of training in the teaching of instrument flight skills. A maximum 5 of the 30 hours may be conducted on an approved aeroplane simulator or flight training device.

(amended 1998/09/01)

(4) Skill

An applicant shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 9 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 4 – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.

(amended 2012/02/19)

(5) Credits**(a) Knowledge**

- (i) An applicant who holds, or has held an instructor rating for helicopters, gyroplanes, gliders, balloons or aerobatics shall be credited with 10 hours of the 25 hours ground school instruction requirement.

(amended 1999/03/01)

(ii) An applicant who holds an Airline Transport Pilot Licence - Aeroplane, or a teaching certificate issued by provincial or territorial authorities, shall be credited with 10 hours of the 25 hours' ground school instruction requirement.

(amended 1999/03/01)

(iii) An applicant who holds or has held within the preceding 24 months, a flight instructor rating - Helicopter, shall be considered to have met the written examination requirement.

(amended 2000/09/01)

(b) Experience

(i) An applicant who holds, or has held a Flight Instructor Rating - Helicopter, shall be credited with 10 hours of the 30 hours' of dual flight instruction requirement, and with the 5 hours requirement of training in the teaching of instrument flight skills.

(amended 1999/03/01)

(ii) An applicant who holds an Airline Transport Pilot Licence - Aeroplane, shall be credited with 10 hours of the 30 hours' dual flight instruction requirement.

(amended 1999/03/01)

(6) Credits for DND Applicants

(a) Knowledge

(i) An applicant who holds, or has held within the preceding 24 months, Canadian Forces Instructor Category, Helicopters for initial flight training shall be deemed to have met 10 hours of the 25 hours ground school instruction requirement.

(ii) An applicant who holds, or has held within the preceding 24 months, a Canadian Forces Qualified Flying Instructor (QFI) Category valid for training on single-engine aeroplanes shall be deemed to have met 15 hours of the 25 hours ground school instruction requirement.

(amended 2000/09/01)

(b) Experience

An applicant who holds, or has held within the preceding 24 months, a Canadian Forces Qualified Flying Instructor (QFI) Category valid for training on single-engine aeroplanes shall be credited with a maximum of 15 hours of equivalent experience towards the 30 hours of dual flight instruction.

(amended 2000/09/01)

(7) Credits for Foreign Applicants**(a) Knowledge**

- (i) An applicant who holds, or has held within the preceding 24 months, Flight Instructor Rating - Helicopter issued by a Contracting State shall be deemed to have met 10 hours of the 25 hours ground school instruction requirement.
- (ii) An applicant who holds, or has held within the preceding 24 months a Flight Instructor Rating - Aeroplane issued by a Contracting State shall be deemed to have met 15 hours of the 25 hours ground school instruction requirement.

(b) Experience

An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating - Aeroplane issued by a Contracting State shall be credited with a maximum of 15 hours of equivalent experience towards the 30 hours of dual flight instruction.

421.70 Class 3 - Aeroplane - Requirements**(1) Prerequisites**

(a) An applicant for a initial Class 3 Flight Instructor Rating -Aeroplane shall hold a Class 4 Flight Instructor Rating - Aeroplane and meet the following knowledge, experience and skill requirements.

(b) Providing that the additional knowledge, experience and skill requirements specified below are met, the requirement to hold a Class 4 Flight Instructor Rating - Aeroplane does not apply to:

- (i) a Canadian Forces Flight Instructor - Aeroplanes, or
- (ii) the holder of a Flight Instructor Rating - Aeroplane issued by a Contracting State provided that:
 - (A) the State that issued the rating and Canada have formally agreed to grant reciprocal exemptions; and
 - (B) the rating was not issued on the basis of a rating issued by a State with which Canada has not formally agreed to grant reciprocal exemptions.

(2) Knowledge

(a) An applicant qualifying under 1(b) above who has acquired a minimum of 750 hours ab-initio flight instruction experience shall:

- (i) complete a course of ground instruction which shall include the subjects listed under the Knowledge requirement for a Class 4 Rating,
- (ii) obtain a letter of recommendation from the holder of a Class 1 Flight Instructor rating prior to attempting the written examinations specified below; and

(iii) obtain a minimum of 70% in the written examination Flight Instructor Rating - Aeroplane Class 4 (AIRAF).

(b) An applicant qualifying under 1(b) above who has completed less than 750 hours, but a minimum of 300 hours ab-initio flight instruction shall:

(i) complete a course of a minimum of 10 hours ground instruction, which shall include the subjects listed under the Knowledge requirement for a Class 4 Rating,

(ii) obtain a letter of recommendation from the holder of a Class 1 Flight Instructor Rating prior to attempting the written examinations specified above; and

(iii) obtain a minimum of 70% in the written examination specified above.

(3) Experience

(a) An applicant shall provide evidence of having conducted in aeroplanes, a minimum of 100 hours dual flight instruction for the issue of a pilot licence.

(b) An applicant who is referred to in subparagraph (1)(b)(i) or (ii) shall be deemed to have met the requirements in (a) above.

(4) Skill

(a) Subject to paragraph 4(b) below, an applicant shall complete an "Instructor's Training Record While Under Direct Supervision" indicating evidence of:
(amended 1999/03/01)

(i) authorizing no fewer than 3 students for their first solo flight,
(amended 1999/03/01)

(ii) recommending no fewer than 3 students for their flight test for issue of a permit or licence, all of whom demonstrated the required standard of skill and knowledge; and
(amended 1999/03/01)

(iii) having conducted 50% or more of the last 10 hours of the dual flight instruction for the students authorized in (i) and recommended in (ii) above.
(amended 1999/03/01)

(b) Where an applicant qualifies under 1(b) above, the applicant shall:

(i) complete a course of dual instruction from the holder of a Class 1 Flight Instructor Rating;

(ii) obtain a letter of recommendation from that instructor to attempt the flight test; and

(iii) successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 10 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 3 – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(c) Provided the requirements in (a) above are met, a flight test is not required for the issue of a Class 3 Flight Instructor Rating - Aeroplane, unless the application for a Class 3 Instructor Rating coincides with the expiry date of a Class 4 Instructor Rating.

(d) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with Section 421.67, is not eligible to upgrade the instructor rating from a Class 4 to a Class 3.

421.71 Class 2 - Aeroplane - Requirements

(1) Prerequisites

An applicant for an initial Class 2 Flight Instructor Rating - Aeroplane shall have held a Class 3 Flight Instructor Rating - Aeroplane during the previous 12 month period and meet the following knowledge, experience and skill requirements.

(2) Knowledge

An applicant shall have, within the previous 24 months, obtained a minimum of 70% in a written examination Flight Instructor Rating - Aeroplane (AIRAT).
(amended 2003/06/01)

(3) Experience

An applicant shall provide evidence of having conducted, in aeroplanes, a minimum of 500 hours of flight instructor experience, including a minimum of:

(a) 400 hours dual flight instruction for the issue of a civil pilot licence or to military wings standards;

(amended 2005/06/01)

(b) have recommended no fewer than 10 applicants for the recreational, private and/or commercial flight test, of which a maximum of 3 may be for the recreational flight test; and
(amended 2005/06/01)

(c) five of the ten recommendations for the private or commercial flight test referred to in paragraph 3(b) shall be considered to have been met in the case of an applicant who holds or has held a Canadian Forces Qualified Flying Instructor (QFI) Category A1 or A2 valid for training on single-engine aeroplanes.

(amended 2005/06/01)

(4) Skill

(a) An applicant shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 11 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 2 – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(b) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with section 421.67, is not eligible to upgrade the instructor rating from a Class 3 to a Class 2.

421.72 Class 1 - Aeroplane - Requirements

(1) Prerequisites

An applicant for an initial Class 1 Flight Instructor Rating - Aeroplane shall have held a Class 2 Flight Instructor Rating - Aeroplane during the previous 12 month period and meet the following knowledge, experience and skill requirements.

(2) Knowledge

An applicant shall have, within the previous 24 months, obtained a minimum of 80% in a written examination Flight Instructor Rating - Aeroplane Class 1 (AIRAT).
(amended 2000/09/01)

(3) Experience

An applicant shall provide evidence of having conducted, in aeroplanes, a minimum of 750 hours of flight instruction, including a minimum of:

(a) 600 hours dual flight instruction for the issue of a civil pilot licence or to military wings standards, and

(b) have recommended no fewer than 10 applicants for the recreational, private and/or commercial flight test, of which a maximum of 3 may be for the recreational flight test.

(4) Skill

(a) An applicant shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 12 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 1 – Aeroplane" of Standard 428 — *Conduct of Flight Tests*.
(amended 2012/02/19)

(b) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with Section 421.67, is not eligible to upgrade the instructor rating from a Class 2 to a Class 1.

(c) An applicant who has failed the previous instructor flight test is not eligible to upgrade the instructor rating from a Class 2 to a Class 1 until after successful re-instatement of a Class 2 Flight Instructor Rating.
(amended 2005/12/01)

DIVISION XIX - FLIGHT INSTRUCTOR RATING - HELICOPTER

421.77 Class 4 - Helicopter - Requirement

(1) Prerequisites

Before commencing training for the Class 4 Instructor Rating, an applicant shall hold a Commercial Pilot Licence - Helicopter have completed a minimum of 250 hours pilot-in-command flight time in helicopters, and have completed a minimum of 15 hours instrument time of which a maximum of 10 hours may have been completed in approved instrument ground trainers.

(2) Knowledge

(a) An applicant shall have completed a minimum of 25 hours of Instructor Rating ground school instruction which shall include:

- (i) practical application of the basic principles of learning and techniques of instruction;
 - (ii) preparation and use of lesson plans;
 - (iii) procedures for planning and presenting preparatory ground instruction, pre-flight briefings, in-flight instruction, and post-flight debriefings;
 - (iv) theory of flight required to teach the air exercises;
 - (v) aircraft flight manuals and aircraft operating limits;
 - (vi) presentation of pilot decision-making concepts; and
 - (vii) the use of the Transport Canada Helicopter Flight Instructor Guide, Flight Training Manual, Part IV of the *Canadian Aviation Regulations*, and the appropriate Flight Test schedules and guides.
- (amended 2012/02/19)

(b) An applicant shall obtain a minimum of 70% in each of the following written examinations:

- (i) Flight Instructor Rating - Helicopter - Class 4 (HIRAF); and
- (ii) Flight Instructor Rating - Helicopter - Instrument Instruction (FIREN).

(3) Experience

An applicant shall complete in helicopters a minimum of 30 hours of dual flight instruction on overall pilot proficiency and the presentation of all exercises set forth in the Flight Instructor Guide and shall include a minimum of 5 hours of training in the teaching of instrument flight skills. A maximum of 5 of the 30 hours may be conducted on an approved helicopter simulator or flight training device.

(amended 1998/09/01)

(4) Skill

An applicant shall successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 13 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 4 – Helicopter" of Standard 428 — *Conduct of Flight Tests*, (amended 2012/02/19)

(5) Credits

(a) Knowledge

(i) An applicant who holds or has held an instructor rating for aeroplanes, gyroplanes, gliders, balloons or aerobatics shall be credited with 10 hours of the 25 hours' ground school instruction requirement.

(amended 1999/03/01)

(ii) An applicant who holds an Airline Transport Pilot Licence - Helicopter, or a teaching certificate issued by provincial or territorial authorities shall be credited with 10 hours of the 25 hours' ground school instruction requirement.

(amended 1999/03/01)

(iii) An applicant who holds or has held within the preceding 24 months, a flight instructor rating - Aeroplane shall be considered to have met the written examination requirement.

(amended 2000/09/01)

(b) Experience

(i) An applicant who holds or has held a Flight Instructor Rating - Aeroplane, shall be credited with 10 hours of the 30 hours' of dual flight instruction requirement, and with the 5 hours of training in the teaching of instrument flight skills.

(amended 1999/03/01)

(ii) An applicant who holds an Airline Transport Pilot Licence - Helicopter, shall be credited with 10 hours of the 30 hours dual flight instruction requirement.

(amended 1999/03/01)

(6) Credits for DND Applicants

(a) Knowledge

(i) An applicant who holds, or has held within the preceding 24 months, Canadian Forces Instructor Category, Aeroplanes for initial flight training shall be deemed to have met 10 hours of the 25 hours ground school instruction requirement.

(ii) An applicant who holds, or has held within the preceding 24 months a Canadian Forces Instructor Category, Helicopters for initial flight training shall be deemed to have met 15 hours of the 25 hours ground school instruction requirement.

(b) Experience

An applicant who holds, or has held within the preceding 24 months, a Canadian Forces Instructor Category, Helicopters for initial flight training shall be credited with a maximum of 15 hours of equivalent experience towards the 30 hours of dual flight instruction.

(7) Credits for Foreign Applicants**(a) Knowledge**

- (i) An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating - Aeroplane issued by a Contracting State shall be deemed to have met 10 hours of the 25 hours ground school instruction requirement.
- (ii) An applicant who holds, or has held within the preceding 24 months a Flight Instructor Rating - Helicopter issued by a Contracting State shall be deemed to have met 15 hours of the 25 hours ground school instruction requirement.

(b) Experience

An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating - Helicopter issued by a Contracting State shall be credited with a maximum of 15 hours of equivalent experience towards the 30 hours of dual flight instruction.

421.78 Class 3 - Helicopter - Requirements**(1) Prerequisites**

- (a) An applicant for an initial Class 3 Flight Instructor Rating - Helicopter shall hold a Class 4 Flight Instructor Rating - Helicopter and meet the following knowledge, experience and skill requirements.
- (b) Providing that the additional knowledge, experience and skill requirements specified below are met, the requirement to hold a Class 4 Flight Instructor Rating - Helicopter does not apply to:
 - (i) a Canadian Forces Flight Instructor - Helicopters, or
 - (ii) the holder of a Flight Instructor Rating - Helicopter issued by a Contracting State provided that:
 - (A) the State that issued the rating and Canada have formally agreed to grant reciprocal exemptions; and
 - (B) the rating was not issued on the basis of a rating issued by a State with which Canada has not formally agreed to grant reciprocal exemptions.

(2) Knowledge

(a) An applicant qualifying under 1(b) above who has acquired a minimum of 750 hours ab-initio flight instruction experience shall:

- (i) complete a course of ground instruction which shall include the subjects listed under the Knowledge requirement for a Class 4 Rating;
- (ii) obtain a letter of recommendation from the holder of a Class 1 Flight Instructor rating prior to attempting the written examinations specified below; and
- (iii) obtain a minimum of 70% in each of the following written examinations:
 - (A) Flight Instructor Rating - Helicopter - Class 4 (HIRAF); and
 - (B) Flight Instructor Rating - Helicopter - Instrument Instruction (FIREN).

(b) An applicant qualifying under 1(b) above who has completed less than 750 hours, but a minimum of 300 hours ab-initio flight instruction shall:

- (i) complete a course of a minimum of 10 hours ground instruction, which shall include the subjects listed under the Knowledge requirements for a Class 4 Rating,
- (ii) obtain a letter of recommendation from the holder of a Class 1 Flight Instructor Rating prior to attempting the written examinations specified above; and
- (iii) obtain a minimum of 70% in each of the written examinations specified above.

(3) Experience

(a) An applicant shall provide evidence of having conducted in helicopters, a minimum of 100 hours dual flight instruction for the issue of a pilot licence.

(b) An applicant who meets the requirements of 1(b) shall be deemed to have met the requirements in (a) above.

(4) Skill

(a) Subject to paragraph 4(b) below, an applicant shall complete an "Instructor's Training Record While Under Direct Supervision" indicating evidence of:
(amended 1999/03/01)

- (i) authorizing no fewer than 3 students for their first solo flight,
- (ii) recommending 3 students for their flight test for issue of a licence, all of whom demonstrated the required standard of skill and knowledge; and
(amended 1999/03/01)
- (iii) having conducted 50% or more of the last 10 hours of the dual flight instruction for the students authorized in (i) and recommended in (ii) above.
(amended 1999/03/01)

(b) where an applicant qualifies under 1(b) above, the applicant shall:

- (i) complete a course of dual instruction from the holder of a Class 1 Flight Instructor Rating,
- (ii) obtain a letter of recommendation from that instructor to attempt the flight test; and
- (iii) successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 14 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 3 – Helicopter" of Standard 428 — *Conduct of Flight Tests* (amended 2012/02/19).

(c) Provided the requirements in (a) above are met, a flight test is not required for the issue of a Class 3 Flight Instructor Rating - Helicopter, unless the application for a Class 3 Instructor Rating coincides with the expiry date of a Class 4 Instructor Rating.

(d) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with section 421.67, is not eligible to upgrade the instructor rating from a Class 4 to a Class 3.

421.79 Class 2 - Helicopter - Requirements

(1) Prerequisites

An applicant for an initial Class 2 Flight Instructor Rating - Helicopter shall have held a Class 3 Flight Instructor Rating - Helicopter during the previous 12 month period and meet the following knowledge, experience and skill requirements.

(2) Knowledge

An applicant shall have, within the previous 12 months, obtained a minimum of 70% in a written examination Flight Instructor Rating - Helicopter - Class 2 (HIRAT).

(3) Experience

An applicant shall provide evidence of having conducted, in helicopters, a minimum of 500 hours of flight instructor experience, including a minimum of:

- (a) 400 hours dual flight instruction for the issue of a civil pilot licence or to military wings standards; and
- (b) have recommended no fewer than 10 applicants for the private and/or commercial flight test.

(4) Skill

- (a) An applicant shall successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 15 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 2 – Helicopter" of Standard 428 — *Conduct of Flight Tests* (amended 2012/02/19).

(b) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with Section 421.67, is not eligible to upgrade the instructor rating from a Class 3 to a Class 2.

421.80 Class 1 - Helicopter - Requirements

(1) Prerequisites

An applicant for an initial Class 1 Flight Instructor Rating - Helicopter shall have held a Class 2 Flight Instructor Rating - Helicopter during the previous 12 month period and meet the following knowledge, experience and skill requirements.

(2) Knowledge

An applicant shall have, within the previous 12 months, obtained a minimum of 80% in a written examination Flight Instructor Rating - Instructional Techniques (HIRAT).

(3) Experience

An applicant shall provide evidence of having conducted, in helicopters, a minimum of 750 hours of flight instruction, including a minimum of:

- (a) 600 hours dual flight instruction for the issue of a civil pilot licence or to military wings standards, and
- (b) have recommended no fewer than 10 applicants for the private and/or commercial flight test.

(4) Skill

(a) An applicant shall successfully complete a flight test as pilot-in-command of a helicopter, in accordance with Schedule 16 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 1 – Helicopter" of Standard 428 — *Conduct of Flight Tests*, (amended 2012/02/19)

(b) An applicant who is the subject of follow-up action with respect to the applicant's Flight Test Record in accordance with Section 421.67, is not eligible to upgrade the instructor rating from a Class 2 to a Class 1.

(c) An applicant who has failed the previous instructor flight test is not eligible to upgrade the instructor rating from a Class 2 to a Class 1 until after successful re-instatement of a Class 2 Flight Instructor Rating.
(amended 2005/12/01)

**DIVISION XX - FLIGHT INSTRUCTOR
RATINGS - GLIDER, BALLOON AND
GYROPLANE**

**421.82 *Flight Instructor Rating - Glider -
Requirements***

(1) Age

An applicant shall be a minimum of eighteen years of age.

(2) Medical Fitness

An applicant shall hold a Category 1 or 3 Medical Certificate.

(3) Experience

An applicant shall have completed in gliders a minimum of:

(a) 20 hours flight time including a minimum of 125 flights of which no fewer than 10 flights have been completed in a two-seat glider; or

(b) 10 hours flight time including a minimum of 200 flights of which no fewer than 10 flights have been completed in a two-seat glider.

(4) Skill

An applicant shall submit a letter of recommendation from the holder of a Flight Instructor Rating - Glider certifying that the applicant has reached a standard of skill to instruct in gliders.

(5) Credits

(a) An applicant who holds a private or higher pilot licence - aeroplane shall have the total flight time and the total number of flights specified in the Experience Requirement above reduced by 25%.

(b) An applicant with aeroplane pilot experience in excess of 100 hours who holds a private or higher pilot licence - aeroplane shall be issued a Flight Instructor Rating - Glider after completing a minimum of 10 hours flight time in gliders and at least 50 flights with no fewer than 10 of these flights in two-seat gliders.

(c) An applicant with a commercial or higher pilot licence - aeroplane who holds a valid Flight Instructor Rating - Aeroplane shall be issued a Flight Instructor Rating - Glider after completing a minimum of at least 25 flights in gliders with no fewer than 10 of these flights in two seat gliders.

421.83 *Flight Instructor Rating - Balloon - Requirements*

(1) Age

An applicant shall be a minimum of eighteen years of age.

(2) Knowledge

(a) An applicant shall have completed a course of instructional techniques which shall be a minimum of 10 hours and include the following:

- (i) the practical application of the basic principles of learning and techniques of instruction;
- (ii) preparation and use of lesson plans;
- (iii) flight preparatory instruction;
- (iv) pre and post flight briefing procedures relative to air exercises and weather conditions; and
- (v) normal and emergency manoeuvres.

(b) An applicant shall have obtained a minimum of 80% in a written examination Flight Instructor Rating Instructional Techniques (FITEN).

(3) Experience

(a) An applicant shall have completed a minimum of 50 hours of flight time in balloons and within 12 months preceding the date of application, shall have completed flight training of a minimum of 5 hours including:

- (i) 3 dual flights on instructional techniques of a minimum of 30 minutes each between takeoff and landing;
- (ii) 2 dual tethered flights on instructional techniques of a minimum of 30 minutes each;
- (iii) 4 flights as pilot-in-command of a minimum of 30 minutes each between takeoff and landing; and
- (iv) 1 tethered flight as pilot-in-command of a minimum of 30 minutes.

(b) The 50 hours of flight time referred to above shall include not more than 10 hours of tethered flight time.

(4) Skill

An applicant shall submit a letter of recommendation from the holder of a Flight Instructor Rating - Balloon certifying that the applicant has reached a standard of skill to instruct in balloons.

(5) Credit

The ground school and written examination specified under the Knowledge Requirement above shall be deemed to have been met if the applicant holds, or has held within the preceding 24 months, a valid Commercial or higher pilot licence with flight instructor privileges.

421.84 *Flight Instructor Rating - Gyroplane - Requirements***(1) Knowledge**

An applicant shall:

- (a) obtain a minimum of 70% in a written examination Flight Instructor Rating - Gyroplane (GYRIP); and
- (b) obtain a minimum of 90% in the written examination PSTAR, if not previously completed.

(2) Experience

An applicant shall have completed in gyroplanes a minimum of:

- (a) 250 hours of flight time as pilot-in-command;
- (b) 20 hours of ground school instruction on the following subjects:
 - (i) basic theory of flight,
 - (ii) aircraft operation limitations,
 - (iii) pre and post flight briefing procedures,
 - (iv) presentation of the air exercises, and
 - (v) gyroplane flight test standard; and
- (c) 12 hours of dual air instruction on demonstration and presentation of the air exercises required ab-initio visual flight training, or
- (d) submit proof of successful completion of a course of training for gyroplane flight instructors offered by the gyroplane manufacturer and recognized by the Minister as being satisfactory for such training.

(3) Skill

By means of a flight test, an applicant shall demonstrate the ability to perform normal flight manoeuvres, gyroplane flight training techniques and the ability to conduct effective pre and post flight briefings.

(4) Alternate Gyroplane Instructor Qualifications

Where a qualified gyroplane flight instructor is not available, the gyroplane training to be acquired towards the experience requirement for the issue of a Pilot Permit - Gyroplane may be conducted by a person approved by the Minister to conduct the training if the following conditions are met:

(amended 1999/03/01)

(a) that person is the holder of a Pilot Permit - Gyroplane, endorsed for the type of gyroplane in which instruction is to be given and has completed:

(amended 1999/03/01)

(i) not less than 50 hours of flight time in powered gyroplanes, and

(ii) if towed flight instruction is to be given, not less than 10 towed flights in gyroplanes;
or

(amended 1999/03/01)

(b) that person is the holder of a Flight Instructor Rating - Aeroplane or Helicopter.

(amended 1999/03/01)

(5) Credits for Foreign Applicants

Courses conducted outside Canada shall be accepted as meeting the knowledge and experience requirements for an instructor rating - gyroplane providing that the applicant provides:

(a) a syllabus of training which sets forth the duration of the course, enumerates all flight exercises to be undertaken and lists all ground school lecture subjects to be covered; and

(b) evidence in writing from the Licensing Authority of the State concerned that the course meets their experience and knowledge requirements for the gyroplane instructor rating.

(6) Gyroplane Flight Instructor - Privileges

(amended 1998/03/23)

After acquiring 200 hours flight time as a gyroplane flight instructor, a person may exercise the privileges in Section 401.84(f).

(amended 1998/03/23)

421.85 *Period of Validity*

(1) Glider

(amended 1999/03/01)

An instructor rating - glider shall be valid to the first day of the thirty-seventh month following the month in which the letter of recommendation was dated.

(2) Balloon

(amended 1999/03/01)

An instructor rating - balloon shall be valid to the first day of the thirty-seventh month following the month in which the letter of recommendation was dated.

(3) Gyroplane

(amended 1999/03/01)

An instructor rating - gyroplane shall be valid to the first day of the thirteenth month following the month in which the flight test was conducted.

**421.86 *Renewal of Flight Instructor Ratings -
Glanders, Balloon and Gyroplane***
(amended 1999/03/01)

(1) Glider

An applicant for renewal of a Flight Instructor Rating - Glider shall:

(a) have completed a minimum of 3 hours of flight time as a glider flight instructor during the preceding 12 months;

(amended 2005/12/01)

(b) provide a recommendation from the holder of a Flight Instructor Rating - Glider, certifying that the applicant is familiar with current instructional techniques and is competent to act as a glider flight instructor; or

(amended 2005/12/01)

(c) successfully complete a flight instructor refresher course, in which case the rating is renewed from the date of the last day of the course. When the last day of the course is within 90 days of the valid to date of the existing rating, the renewed rating is valid to the same date as if the refresher course was completed during the month prior to the valid to date of the existing rating.

(amended 2005/12/01)

(2) Balloon

An applicant for renewal of a Flight Instructor Rating - Balloon shall:

(a) have completed a minimum of 3 hours of balloon flight instructor experience during the preceding 12 months;

(amended 2005/12/01)

(b) provide a recommendation from the holder of a Flight Instructor Rating - Balloon, certifying that the applicant is familiar with current instructional techniques and is competent to act as a balloon flight instructor; or

(amended 2005/12/01)

(c) successfully complete a flight instructor refresher course, in which case the rating is renewed from the date of the last day of the course. When the last day of the course is within 90 days of the valid to date of the existing rating, the renewed rating is valid to the same date as if the refresher course was completed during the month prior to the valid to date of the existing rating.

(amended 2005/12/01)

(3) Gyroplane

(a) An applicant for renewal of a Flight Instructor Rating - Gyroplane shall:

- (i) complete a flight test, including a pre-flight briefing and a post-flight debriefing; and
- (ii) obtain a minimum of 70% in the written examination Flight Instructor Rating - Gyroplane (GYRIP)), unless already completed.

(b) An applicant whose instructor rating has lapsed for more than 12 months must submit a completed application form certified by a qualified gyroplane flight instructor that the applicant is familiar with current instructional techniques and is competent to undergo a flight test.

(c) An applicant whose instructor rating has lapsed for more than 24 months shall complete the written examination GYRIP before the flight test is conducted as well as meet the requirements specified in paragraph (b) above.

(4) [deleted 2008/05/01]

DIVISION XXI - FLIGHT INSTRUCTOR RATING - ULTRA-LIGHT AEROPLANE

421.88 *Flight Instructor Rating - Ultra-light Aeroplane - Requirements*

(1) Age

An applicant shall be a minimum of eighteen years of age.

(2) Medical Fitness

An applicant shall hold a Category 3 Medical Certificate.

(3) Knowledge

(a) An applicant shall have completed training in instructional techniques which shall not be less than 10 hours and shall include:

- (i) the practical application of the basic principles of learning and learning factors with emphasis on the preparation and use of lesson plans,
- (ii) preparatory ground instruction,

- (iii) pre-flight, in-flight instruction and post-flight briefing, and
- (iv) flight safety.

(b) An applicant shall have obtained 80% in the written examination Flight Instructor Rating Instructional Techniques (FITEN).

(c) An applicant shall have successfully completed ground school training, including normal and emergency procedures, on ultra-light aeroplanes.

(d) an applicant shall have obtained 90 percent (90%) in the written examination ULTRA. (amended 1998/03/23)

(4) Experience

Within the 24 months preceding the date of application an applicant shall have acquired in ultra-light aeroplanes a minimum of 50 hours flight time, including a minimum of:

- (a) 5 hours of dual instruction flight time,
- (b) 5 hours of dual flight time on instructional techniques, and
- (c) 25 hours solo flight time.

(5) Skill

(a) An applicant shall submit a letter from the holder of a Flight Instructor Rating - Ultra-Light Aeroplane or the holder of a Flight Instructor Rating - Aeroplane certifying that the applicant has demonstrated the ability to instruct both normal and emergency manoeuvres appropriate to the ultra-light aeroplane used for the training program, and with a degree of competency appropriate to that of the holder of an ultra-light aeroplane instructor rating.

(amended 2005/12/01)

(b) After December 31, 2006, an applicant shall have successfully completed a flight test in accordance with the requirements outlined in the Standard titled *Flight Test Standard – Ultra-light Aeroplane* (TP13984E).

(amended 2005/12/01)

(6) Credits

(a) An applicant who holds a permit or licence in any other category of aircraft shall be deemed to meet the knowledge requirement specified in paragraph (3)(d) above (ULTRA). (amended 2000/09/01)

(b) An applicant who is the holder of, or has held a pilot licence of the aeroplane category within the preceding 5 years shall have the Experience requirement reduced to a minimum of 20 hours of flight time in Ultra-light Aeroplanes, including a minimum of 2 hours dual instruction flight time and a minimum of 10 hours solo flight time.

(c) The Knowledge and Skill requirements shall be deemed to have been met if the applicant holds, or has held within the preceding two years, a Flight Instructor Rating - Aeroplane or Helicopter.

(d) The requirement for a letter of recommendation for renewal of the rating can be satisfied by a successful instructor renewal flight test in the aeroplane or helicopter category aircraft.

(7) Flight Instructor Rating - Ultra-light Aeroplane - Restricted to the Operation and Instruction of Powered Parachutes
(amended 1998/03/23)

(a) The requirements for a Flight Instructor Rating - Ultra-light Aeroplane as set out in paragraphs (1), (2), (3), (5), (6) also apply for a Flight Instructor Rating - Ultra-light Aeroplane - Restricted to Powered Parachutes;
(amended 1998/03/23)

(b) Where any of the experience requirements has been met on powered parachutes, a Flight Instructor Rating - Ultra - Light Aeroplane - Restricted to the Flight Instruction on powered parachutes shall be issued;
(amended 1998/03/23)

(c) An applicant for a Flight Instructor Rating - Ultra Light Aeroplane - Restricted to the operation and instruction of powered parachutes shall be deemed to have met the dual instruction and dual flight time requirements as set out in paragraphs (4)(a) and (4)(b);
(amended 1998/03/23)

(d) The Powered Parachute restriction on a Flight Instructor Rating - Ultra - Light Aeroplane can be removed if, within the 24 months preceding the date of application, the applicant has either:
(amended 1998/03/23)

(i) met the experience requirements of a minimum of 50 hours flight time in ultra-light aeroplanes as set out in paragraph (4), excluding powered parachutes; or
(amended 1998/03/23)

(ii) has acquired a minimum of 85 hours flight time on ultra-light aeroplanes, including a minimum of 35 hours on ultra-light aeroplanes, excluding powered parachutes.
(amended 1998/03/23)

421.89 *Period of Validity*

(1) Validity

An instructor rating - ultra-light aeroplane will be valid to the first day of the sixty-first month (i.e. at the end of five years) following the month in which the letter of recommendation was dated.
(amended 1998/03/23)

(2) Renewal

(amended 1998/03/23)

(a) An applicant for renewal of the flight instructor rating - ultra-light aeroplane shall do one of the following:

(amended 1998/03/23)

(i) complete a minimum of 10 hours flight time as an ultra-light aeroplane flight instructor during the preceding 12 months;

(amended 2005/06/01)

(ii) provide a recommendation from the holder of a Flight Instructor Rating -Ultra-light Aeroplane certifying that the applicant is familiar with current instructional techniques, and is competent to act as an ultra-light aeroplane flight instructor; or

(amended 2005/06/01)

(iii) successfully complete a flight instructor refresher course, in which case the rating shall be renewed from the date of the last day of the course. When the last day of the course is within 90 days of the valid to date of the existing rating, the renewed rating shall be valid to the same date as if the refresher course was completed during the month prior to the valid date of the existing rating.

(amended 2005/06/01)

(b) [deleted 2008/05/01]

**DIVISION XXII - FLIGHT INSTRUCTOR
RATING - AEROPLANE - AEROBATIC****421.91 Class 2 Rating - Requirements****(1) Prerequisites**

Before commencing training for a Class 2 Aerobatic Instructor Rating, an applicant shall:

(amended 2000/09/01)

(a) hold a Commercial or Airline Transport Pilot Licence - Aeroplane; and

(amended 2000/09/01)

(b) provide a personal log with certification from the holder of a Class 1 or Class 2 Aerobatic Instructor rating that the applicant is competent to perform aerobatic manoeuvres.

(amended 2000/09/01)

(2) Knowledge

(a) An applicant shall have completed a minimum of 15 hours of Aerobatic Instructor Rating ground school instruction which shall include:

- (i) the practical application of the basic techniques of instruction and principles of learning as outlined in Section 1 of the Flight Instructor Guide;
- (ii) lesson planning;
- (iii) theory of flight applicable to aerobatics;
- (iv) preparatory ground instruction procedures;
- (v) pre and post-flight briefing procedures;
- (vi) teaching aerobatic flight manoeuvres;
- (vii) aircraft structural limitations;
- (viii) medical factors and human tolerances;
- (ix) aerobatic pre-flight inspection;
- (x) considerations for recovery from unplanned manoeuvres;
- (xi) flight safety considerations;
- (xii) regulations and airspace restrictions relating to aerobatic flight; and
- (xiii) presentation of pilot decision-making concepts.

(b) An applicant shall have obtained 90% in the written examination PSTAR, unless previously completed.

(3) Experience

(a) An applicant shall provide evidence of having completed a minimum of 10 hours of dual flight instruction on the teaching of aerobatic manoeuvres including:

- (i) aerobatic spin entry and recovery (minimum 1 turn);
- (ii) loop;
- (iii) barrel roll;
- (iv) slow roll;
- (v) snap roll;
- (vi) hammerhead turn;

(vii) combination manoeuvres including:

- (A) 1/2 loop followed by 1/2 roll (Immelmann Turn),
- (B) 1/2 roll followed by 1/2 loop (Split S),
- (C) 5/8 loop followed by 45° descending 1/2 roll (1/2 Cuban 8), and
- (D) 45° climbing 1/2 roll followed by 5/8 loop (1/2 Reverse Cuban 8); and

(viii) recovery techniques from unplanned aerobatic manoeuvres.

(4) Skill

The applicant shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 17 "Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 2 — Aeroplane — Aerobatic" of Standard 428 — *Conduct of Flight Tests* (amended 2012/02/19)

(5) Credits

(a) Knowledge

- (i) An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating - Glider - Aerobatic shall be deemed to have met 10 hours of the 15 hours ground school instruction requirement.
- (ii) An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating for aeroplanes or helicopters shall be deemed to have met 10 hours of the 15 hours ground school instruction requirement.

(b) Experience

- (i) An applicant who holds or has a Flight Instructor Rating - Gliders - Aerobatic shall be deemed to have met the experience requirement.
- (ii) An applicant who holds or has held a Flight Instructor Rating for aeroplanes or helicopters shall be deemed to have met the experience requirement.
- (iii) An applicant who holds or has held a Transport Canada "Statement of Aerobatic Competency" shall be deemed to have met the experience requirement.
(amended 1998/09/01)

(6) Credits for DND Applicants

(a) Knowledge

An applicant who holds, or has held within the preceding 24 months, a Canadian Forces Instructor Category, Aeroplanes shall be deemed to have met 10 hours of the 15 hours ground school instruction requirement.

(b) Experience

An applicant who holds or has held a Canadian Forces Qualified Flying Instructor (QFI) category valid for training on single-engine aeroplanes shall be deemed to have met the experience requirement.

(7) Credits for Foreign Applicants**(a) Knowledge**

An applicant who holds, or has held within the preceding 24 months, a Flight Instructor Rating - Aeroplane issued by a Contracting State shall be deemed to have met 10 hours of the 15 hours ground school instruction requirement.

(b) Experience

- (i) An applicant who holds or has held a Flight Instructor Rating - Aeroplane issued by a Contracting State shall be deemed to have met the experience requirement.
- (ii) An applicant who holds or has held an International Council of Airshows (ICAS) Aerobatic Competency Recommendation to the FAA shall be deemed to have met the experience requirement.

421.92 Class 1 Rating - Requirements**(1) Prerequisites**

An applicant for a Class 1 Aerobatic Instructor Rating shall:

- (a) hold, or have held during the preceding 12 month period, a Class 2 Aerobatic Instructor Rating - Aeroplane; or
- (b) where the prerequisite specified above has not been met, the applicant shall:
 - (i) hold or have held within the previous 12 months, a Class 1 Flight Instructor rating - Aeroplane or Helicopter; and
 - (ii) provide a letter certifying that the applicant is competent to perform the aerobatic manoeuvres specified in the Experience section of the Class 2 Aerobatic Rating.

(2) Knowledge

(a) An applicant shall have:

- (i) completed 10 hours of Aerobatic Instructor Rating ground school instruction on topics relating to the training of instructors; and
- (ii) obtained a minimum of 80% in the written examination Flight Instructor rating Instructional Techniques (FITEN).

(b) An applicant who does not hold, or has not held within the previous 24 months, a Class 2 Aerobatic Instructor Rating shall be required to meet the knowledge requirement for the Class 2 Aerobatic Instructor Rating.

(3) Experience

An applicant shall:

(a) have completed a minimum of 50 hours aerobatic instructing experience; or

(b) hold a Class 1 Flight Instructor Rating and provide a letter certifying that the applicant is competent to perform the aerobatic manoeuvres specified in the Experience section of the Class 2 Aerobatic Rating.

(4) Skill

The applicant shall successfully complete a flight test as pilot-in-command of an aeroplane, in accordance with Schedule 18 “Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 1 — Aeroplane — Aerobatic” of Standard 428 — *Conduct of Flight Tests*, (amended 2012/02/19)

(5) Credits

An applicant who holds, or has held within the previous 24 months, a Class 1 Flight Instructor Rating - Aeroplane or Helicopter shall be deemed to have met the knowledge requirement.

DIVISION XXIII - FLIGHT INSTRUCTOR RATING - GLIDER - AEROBATIC

421.94 Requirements

(1) An applicant shall:

(a) provide a recommendation from the holder of a Flight Instructor Rating - Glider - Aerobatic certifying that the applicant has demonstrated the ability to perform and instruct on aerobatic manoeuvres in gliders; or

(b) demonstrate the ability to perform and instruct on aerobatic manoeuvres.

(2) Credits

The holder of an Aerobatic Instructor Rating - Aeroplane shall be considered to have met the requirements specified above.

421.95 to 421.99 Reserved

APPENDIX A - AIRCRAFT TYPE DESIGNATORS

NOTE: This Chart is provided as a guide only. In the event of a discrepancy between this list and the appropriate Aircraft Type Approval, Aircraft Type Certificate, Flight Permit, Aircraft Flight Manual or Pilots' Operating Handbook then the latter shall take precedence.

Legend:

(amended 2004/03/01)

P - Piston Engine

T - Turbine Engine

* - denotes some models may be High Performance Aircraft

(amended 2006/06/30)

- High Performance aeroplane - in accordance with CAR 400.01(1)

Aircraft Type Designators - 1. Aeroplanes

(amended 2006/12/30)

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Aermacchi	MC6	AL60	1P (amended 2004/03/01)	1
Aerocomp (amended 2006/06/30)	CA7T	Comp Air 7SLX	1T	1*
Aero Vodochody Czech (amended 2002/03/01)	L29	Delfin L29	1T	1*
	L39	Albatross L39	1T	1*
Aeronca Manufacturing	AR11	All series 7 and 11 (Chief/Super Chief)	1P (amended 2004/03/01)	1
	AR15	Sedan	1P (amended 2004/03/01)	1
	AR58	Champion Lancer	2P (amended 2004/03/01)	1
Aerospatiale	FOUG (amended 2000/06/01)	CM170 Magister	2T	1
Air Tractor	AT301	Model 301	1P (amended 2004/03/01)	1
	AT401	Model 401	1P (amended 2004/03/01)	1
	AT402 (amended 1998/06/01)	Models AT402, AT402A, AT402B	1T	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Airbus Industrie	EA30	Airbus A300, except 600 series	2T	2
	EA31 (amended 1998/06/01)	Airbus A300 (Series 600), Airbus A310 (Series 200/300) (amended 2006/12/30)	2T	2
	EA32 (amended 1998/03/23)	Airbus A320, Airbus A319, A321 (amended 2002/03/01)	2T	2
	EA33 (amended 2000/06/01)	Airbus A330 Series 200/300 (amended 2004/03/01)	2T	2
	EA34	Airbus A340 Series 200/300/500/600 (amended 2006/06/30)	4T	2
Air New (amended 2002/03/01)	VEN20	Venture Model 20	1P (amended 2004/03/01)	1*
Akrotech	G200	Giles G-200	1P	1*
Armstrong-Whitworth (See Hawker-Siddely)				
Auster	AUST	Mark VI and VII	1P (amended 2004/03/01)	1
Aviation Traders	AT98	Carvair ATL98	4P (amended 2004/03/01)	2
Avion de Transport Regional	AT42	ATR42	2T	2
	AT72	ATR72	2T	2
Avions Pierre Robin	R200	All 2000 series models	1P (amended 2004/03/01)	1
	R300	All 3000 series models	1P (amended 2004/03/01)	1
Ayres	AYSC	Thrush SC2R-1340	1P	1
	AYSCT	Thrush SC2R-T15	1T	1
	A660	Thrush SR-T660, Turbo Thrush	1T	1
Barkley Grow	T8P	Barkley Grow	2P (amended 2004/03/01)	1
Beech Aircraft Corp.	BE10	King Air 100	2T	1*
	BE11	Kansan (all model 11)	2P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	BE17	Stagger Wing (all model 17)	1P (amended 2004/03/01)	1
	BE18	Beech 18 (all model 18, C45, Expeditor)	2P (amended 2004/03/01)	1
	BE19	Sport 150	1P (amended 2004/03/01)	1
	BE20	King Air 200	2T	1*
	BE23	Sundowner	1P (amended 2004/03/01)	1
	BE24	Sierra	1P (amended 2004/03/01)	1
	BE30	Beech 300	2T	1* (amended 2002/03/01)
	BE3B	Beech 350	2T	1*
	BE36	Bonanza (includes 33/35)	1P (amended 2004/03/01)	1
	BE40	Beechjet	2T	2
	BE50	Twin Bonanza (all model 50)	2P (amended 2004/03/01)	1
	BE55	Baron (all model 55, 56 and 58)	2P (amended 2004/03/01)	1
	BE60	Duke (all model 60)	2P (amended 2004/03/01)	1
	BE76	Duchess (all model 76)	2P (amended 2004/03/01)	1
	BE80	Queen Air (all model 65, A65, 65-80, 65B80 and 70)	2P (amended 2004/03/01)	1
	BE90	King Air 90	2T	1*
	BE95	Travel Air (all model 95)	2P (amended 2004/03/01)	1
	BE99	Airliner (all model 99)	2T	1*
	BE02	Commuter (Beechcraft 1900)	2T	2
	BEST	Starship (model 2000)	2T	1*

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Bellanca Aircraft Corp.	BL14	Aircruiser	1P (amended 2004/03/01)	1
	BL26	Viking (includes all models)	1P (amended 2004/03/01)	1
	BL28	Scout	1P (amended 2004/03/01)	1
	BL31	Skyrocket	1P (amended 2004/03/01)	1
	CH10	Citabria (includes all models)	1P (amended 2004/03/01)	1
Best Aviation	W620	Weatherly 620B	1P (amended 2004/03/01)	1
Boeing Co.	B17	Fortress	4P (amended 2004/03/01)	2
	B707	Stratoliner (all model 707-720, CC137, C and KC 135)	4T	2
	B727	Astrojet	3T	2
	B73A (amended 1998/06/01)	Boeing 737 Series 100/200	2T	2
	B73B (amended 1998/06/01)	Boeing 737 Series 300/400/500	2T	2
	B73C (amended 2002/03/01)	Boeing 737 Series 600/700/800	2T	2
	B747	Super Jet (all 100/200/300)	4T	2
	B7474	Super Jet series 400	4T	2
	B75	Stearman	1P (amended 2004/03/01)	1
	B757	All models Boeing 757	2T	2
	B767	All models Boeing 767	2T	2
	B97	Stratofreighter (KC97)	4P (amended 2004/03/01)	2
	B777 (amended 1998/06/01)	All models Boeing 777	2T	2
Bombardier	BD700 (amended 2006/06/30)	Global Express and Global 5000	2T	2
BRISTOL (See British Aircraft Corp.)				

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
British Aerospace	BA11	BAC 111	2T	2
	BA31	Jetstream 31	2T	2
	BA32	Jetstream 3200 Series	2T	2
	BA41	Jetstream 41	2T	2
	BA46	146 (all)	4T	2
British Aircraft Corp.	BR31	Britannia 310	4T	2
	BR70	Freighter (Wayfarer)	2P (amended 2004/03/01)	2
	VC8	Viscount (all VC2-700 and 800 series)	4T	2
	VC9	Vanguard (all VC950 series)	4T	2
Britten-Norman	BN2	Islander (all model BN-2, BN-29)	2P (amended 2004/03/01)	1
	BN3	Trislander BN-2A	3P (amended 2004/03/01)	1
Camair Corp.	CM48	Twin Navion (all models)	2P (amended 2004/03/01)	1
Canadair Ltd.	CL21	CL215 (amended 2002/03/01)	2P (amended 2004/03/01)	2
	CL22	CL215 Turbine CL415 Turbine (amended 2000/06/01)	2T	2
	CL30 (amended 2006/06/30)	Challenger 300	2T	2
	CL44	Yukon CL44	4T	2
	CL60	Challenger (includes CL601)	2T	2
	CL64 (amended 1998/03/23)	Canadair CL604	2T	2
	CL65	Regional Jet (Series 100/200/700/900) (amended 2006/06/30)	2T	2
Casa	CS12	Casa 212/200	2T	2
Cessna Aircraft Corp.	CT50	Crane	2P (amended 2004/03/01)	1
	C120	Cessna 120 only	1P (amended 2004/03/01)	1
	C140	Cessna 140 only	1P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	C150	Cessna 150 only	1P (amended 2004/03/01)	1
	C152	Cessna 152 only	1P (amended 2004/03/01)	1
	C170	Cessna 170 only	1P (amended 2004/03/01)	1
	C172	Cessna 172 only	1P (amended 2004/03/01)	1
	C175	Cessna 175 only	1P (amended 2004/03/01)	1
	C177	Cessna 177 + 177RG	1P (amended 2004/03/01)	1
	C180	Cessna 180 only	1P (amended 2004/03/01)	1
	C182	Cessna 182 only	1P (amended 2004/03/01)	1
	C185	Cessna 185 only	1P (amended 2004/03/01)	1
	C188	Cessna 188 only	1P (amended 2004/03/01)	1
	C190	Cessna 190 only	1P (amended 2004/03/01)	1
	C195	Cessna 195 only	1P (amended 2004/03/01)	1
	C205	Cessna 205 only	1P (amended 2004/03/01)	1
	C206	Cessna 206 only	1P (amended 2004/03/01)	1
	C207	Cessna 207 only	1P (amended 2004/03/01)	1
	C207T (amended 2000/06/01)	Cessna 207 Turbine	1T	1
	C208	Caravan I	1T	1
	C210	Cessna 210 all models	1P (amended 2004/03/01)	1
	C303	Cessna 303 only	2P (amended 2004/03/01)	1
	C305	Cessna 305 only	1P (amended 2004/03/01)	1
	C310	Cessna 310 only	2P (amended 2004/03/01)	1
	C320	Cessna 320 only (Sky Knight)	2P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	C335	Cessna 335 only	2P (amended 2004/03/01)	1
	C336	Cessna 336 only	2P (amended 2004/03/01)	1
	C337	Cessna 337 only (Skymaster)	2P (amended 2004/03/01)	1
	C340	Cessna 340 only	2P (amended 2004/03/01)	1
	C401	Cessna 401 only	2P (amended 2004/03/01)	1
	C402	Cessna 402 only	2P (amended 2004/03/01)	1
	C404	Cessna 404 only	2P (amended 2004/03/01)	1
	C411	Cessna 411 only	2P (amended 2004/03/01)	1
	C414	Cessna 414 only	2P (amended 2004/03/01)	1
	C421	Cessna 421 only	2P (amended 2004/03/01)	1
	C425	Cessna 425 only (Corsair/Conquest I)	2T	1*
	C441	Cessna 441 only (Conquest II)	2T	1
	C500	Citation I	2T	2
	C501	Citation I/SP	2T	1*
	C525	Citationjet 525 (**Some models are single crew)	2T	2**
	C550	Citation II	2T	2
	C551	Citation II/SP	2T	1*
	C560	Citation V	2T	2
	C25B (amended 2006/06/30)	Citation CJ3	2T	1*
	C56XL (amended 2000/06/01)	Cessna Excel 560XL and 560XLS (amended 2006/12/30)	2T	2
	C650	Citation III	2T	2
	C680 (amended 2006/06/30)	Citation Sovereign 680	2T	2
	C750 (amended 2000/06/01)	Citation X	2T	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Chance Vought/Goodyear	F4U	Corsair (all models)	1P (amended 2004/03/01)	1*
Christen Industries Inc.	CHCH	Eagle II (all models)	1P	1
	C11	Pitts S-1 (all models)	1P	1
	C12	Pitts S-2 (all models)	1P	1
	CIA1	A-1 Huskey	1P	1
Cirrus Design Corp.	VK30	Cirrus	1P	1
	SR22 (amended 2002/12/01)	Cirrus (amended 2002/12/01)	1P (amended 2004/03/01)	1
Conair Limited	DHST	Turbo Firecat (Turbine rebuild of Grumman & De Havilland DHS2)	2T	1*
Convair Division - General Dynamics Corp.	CV13	Valiant	1P (amended 2004/03/01)	1
	CV14	Canso (all models PBY, Consolidated 28, 285, Catalina)	2P (amended 2004/03/01)	2
	CV44	Convair (all models 240, 340, 440; T-29, C-131)	2P (amended 2004/03/01)	2
	CV58	Convair (all models 540/580; CC109; Cosmopolitan)	2T	2
	CV64	Convair (all models 600/640)	2T	2
Co-Z Development Corp. (amended 2004/03/01)	COZY	Cozy MK III	1P	1*
Curtiss-Wright Corp.	CW20	Commando (all CW20 and C-46)	2P (amended 2004/03/01)	2
Dassault-Breguet	DA10	Falcon 10	2T	2
	DA20	Falcon 20	2T	2
	DA21	Mystere Falcon 200	2T	2
	DA50	Falcon 50	3T	2
	DA90	Falcon 900	3T	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	F2TH	Falcon 2000 and 2000EX (amended 2006/12/30)	2T	2
	F2THE	Falcon 2000EX EAsy (amended 2006/12/30)	2T	2
De Havilland Aircraft of Canada Ltd.	AT3	PZL powered Otter	1P (amended 2004/03/01)	1
	DH1	Chipmunk	1P (amended 2004/03/01)	1
	DH2	Beaver	1P (amended 2004/03/01)	1
	DH2T	Turbo Beaver	1T	1
	DH3	Otter (CSR 123; U-1)	1P (amended 2004/03/01)	1
	DH3T	Turbo Otter	1T	1
	DH4	Caribou CC-108	2P (amended 2004/03/01)	2
	DH5	Buffalo CC-115	2T	2
	DH6	Twin Otter CC-138	2T	1
	DH7	Dash 7	4T	2
	DH8	Dash 8 (Series 100, 200, 300 and 400) (amended 2002/03/01)	2T	2
	DH82	Tiger Moth	1P (amended 2004/03/01)	1
	DH83	DH83	1P (amended 2004/03/01)	1
	DH98	Mosquito	2P (amended 2004/03/01)	1*
	DHS2	Tracker CS2F1/2	2P (amended 2004/03/01)	1*
	HS25	Domonie (all model Hawker-Siddeley HS-125 and Beech BH-125)	2T	2
Dimona (Diamond) (See HOAC AUSTRIA)				

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Dornier (amended 2006/06/30)	AJET	Alpha Jet	2T	1*
	DO27	Dornier 27	1P (amended 2004/03/01)	1
	DO28	Dornier 28 (all model A, B, H, Q and S)	2P (amended 2004/03/01)	1
	D228	Model 228 all series	2T	2
	D328 (amended 2002/03/01)	Model 328	2T	2
	DO8D	Skyservant	2P (amended 2004/03/01)	1
Embraer	E110	Embraer Banderante	2T	1 VFR 2 Night 2 IFR
	E120	Embraer Brasilia	2T	2
	E170 (amended 2006/06/30)	Embraer Regional Jet ERJ170/ERJ175/ERJ190 (amended 2006/06/30)	2T	2
Erco	ER15	Ercoupe (415C, CD and D)	1P (amended 2004/03/01)	1
Fairchild Aircraft Ltd.	FA11	Husky F-11	1P (amended 2004/03/01)	1
	FA27	Friendship includes F-27, FH-227)	2T	2
	FA62	Cornell	1P (amended 2004/03/01)	1
	FA71	Fairchild 71	1P (amended 2004/03/01)	1
	FA82	Fairchild 82	1P (amended 2004/03/01)	1
	SW2	All short-body models SA26, SA226T, SA227TT	2T	1*
	SW3	All models SA226AT/TC	2T	1*
	SW4	All models SA227AT/AC	2T	2
	SW5 (amended 2000/06/01)	All models SA227CC and SA227DC	2T	2
Fairy Aviation	FF46	Firefly (model 4, 5 and 6)	1P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Fleet Aircraft	FL2	Fleet 2	1P (amended 2004/03/01)	1
	FL80	Canuck	1P (amended 2004/03/01)	1
Fokker-VFW	FK10	Fokker 100	2T	2
	FK28	Fellowship	2T	2
	FK50	Fokker 50	2T	2
	FK70 (amended 1998/03/23)	Fokker 70	2T	2
Found Bros.	FB2	FBA2C, Centennial 100 (amended 2002/03/01)	1P (amended 2004/03/01)	1
Globe	GC1B	Swift	1P (amended 2004/03/01)	1
Grumman American Aviation	AA1	Trainer	1P (amended 2004/03/01)	1
	AA5	Traveller	1P (amended 2004/03/01)	1
	AA7	Cougar	2P (amended 2004/03/01)	1
	GTBM	Avenger (all model TBM, TBF)	1P (amended 2004/03/01)	1*
	G159	Gulfstream I (G159)	2T	2
	G164	Ag-Cat	1P (amended 2004/03/01)	1
	G2	Gulfstream II (G1159)	2T	2
	G21	Goose/Super Goose	2T	1
	G3	Gulfstream III	2T	2
	G30	S.C.A.N. Series	2P (amended 2004/03/01)	1
	G4	Gulfstream IV	2T	2
	G44	Widgeon/Super Widgeon	2P (amended 2004/03/01)	1
	G73	Mallard	2P (amended 2004/03/01)	1
	G73T	Turbo Mallard	2T	2
Gulfstream Aerospace L.P. (amended 2006/06/30)	GALX	Galaxy/Gulfstream G200	2T	2
Handley Page	HP13	Handley Page HP-137	2T	2
	HP7	Herald (all model HPR7)	2T	2
Harmon	HROC	Rocket	1P	1*

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
(amended 2006/06/30)				
Hawker	FURY	Sea Fury (all marks)	1P (amended 2004/03/01)	1*
	HUNT (amended 2004/03/01)	Hunter (amended 2004/03/01)	1T (amended 2004/03/01)	1* (amended 2004/03/01)
	HURRI	Hurricane (all marks)	1P (amended 2004/03/01)	1*
Hawker-Siddeley	HS04	Dove 104	2P (amended 2004/03/01)	1
	HS06	Comet (all models)	4T	2
	HS14	Heron 114	4P (amended 2004/03/01)	2
	HS25	Domonie (all models Hawker-Siddeley HS-125 and Beech BH-125 except series 1000)	2T	2
	HS65	Argosy (AW650-100/200)	4T	2
	HS74	Andover (HS748/780)	2T	2
	HS8	Rapide 89	2P (amended 2004/03/01)	1
	HS251	BAE 125 series 1000	2T	2
Hawker-Siddeley (AVRO)	AV52	Anson (all marks)	2P (amended 2004/03/01)	1
	AV83	Lancaster	4P (amended 2004/03/01)	2
	AV85	York	4P (amended 2004/03/01)	2
Helio Aircraft Corp.	HE1	Courier (all model H-295, Mark II, U-10)	1P (amended 2004/03/01)	1
Hoac Austria	DV20	DV20 Katana (includes Dimona and DA20 Diamond)	1P	1
	HK36	Super Dimona all models	1P	1
Howard Aero Manufacturing	HW5	Howard 500	2P (amended 2004/03/01)	1
	HW8	Jobmaster (DGA815)	1P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Israel Aircraft Industries	AJ25	Astra	2T	2
	JC21	Jet Commander 1121	2T	2
	RV01	Arava 101B	2T	1*
	WW23	Westwind 1123	2T	2
	WW24	Westwind 1124	2T	2
Lake Aircraft	LA4	Buccaneer	1P (amended 2004/03/01)	1
	LA25	Renegade	1P (amended 2004/03/01)	1
Lear	LR18	Learstar 18	2P (amended 2004/03/01)	2
	LR23	Learjet 23	2T	2
	LR24	Learjet 24	2T	2
	LR25	Learjet 25	2T	2
	LR28	Learjet 28	2T	2
	LR29	Learjet 29	2T	2
	LR31	Learjet 31	2T	2
	LR35	Learjet 35	2T	2
	LR36	Learjet 36	2T	2
	LR45 (amended 2000/06/01)	Learjet 45	2T	2
	LR55	Learjet 55	2T	2
	LR60 (amended 2000/06/01)	Learjet 60	2T	2
Legend Aircraft Inc. (amended 2004/03/01)	TLGND (amended 2004/03/01)	Legend (amended 2004/03/01)	1T (amended 2004/03/01)	1* (amended 2004/03/01)
Ling-Temco-Vought (LTV)	LUSC	Luscombe 8	1P (amended 2004/03/01)	1
Lockheed Aircraft Corp.	L101	Tri Star L1011	3T	2
	L12	Piston Electra (all model 10, 12)	2P (amended 2004/03/01)	1
	L14	Hudson	2P (amended 2004/03/01)	1*
	L18	Lodestar (all model 18; C-57; C-58; C-60)	2P (amended 2004/03/01)	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	L188	Electra (Orion, Aurora)	4T	2
	L300	Lockheed 300	4T	2
	L329	Jet Star	4T	2
	L34	Ventura (all model 34; B-34; PV-1; PV-2)	2P (amended 2004/03/01)	1*
	L38	Lightning P-38	2P (amended 2004/03/01)	1*
	L382	Hercules 130	4T	2
	L49	Constellation (all model 49; 649; 749; and C-121)	4P (amended 2004/03/01)	2
	P2	Neptune	2P (amended 2004/03/01)	2
	T33	Shooting Star (all T-33; F-80)	1T	1*
Martin	MJRM	Mars JRM	4P (amended 2004/03/01)	2
Maule Aircraft Corp.	ML4	Maule (includes M5)	1P (amended 2004/03/01)	1
	ML7 (amended 2004/03/01)	M7-260 (amended 2004/03/01)	1P (amended 2004/03/01)	1 (amended 2004/03/01)
Mcdonnel-Douglas	B26	Invader (all models A-26, B-26)	2P (amended 2004/03/01)	1*
	DC3	Dakota (all model DC-3; C-47; CC-129; C-117; Skytrain)	2P (amended 2004/03/01)	2
	DC3T (amended 1998/03/23)	Dakota - Turbine (All model DC-3; C-47; CC-129; C-117; Skytrain)	2T	2
	DC4	Skymaster (all model DC-4; C-54; C-5; North Star; Argonaut)	4P (amended 2004/03/01)	2
	DC6	Liftmaster (all model DC-6)	4P (amended 2004/03/01)	2
	DC7	Seven Seas (all model DC-7)	4P (amended 2004/03/01)	2
	DC8	DC-8	4T	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	DC9	DC-9	2T	2
	DC10	DC-10	3T	2
	MD11	MD-11	3T	2
	MD80	MD80/81/82/83/87/88	2T	2
Messerschmitt (amended 2006/06/30)	ME109	Bf-109 (All Models)	1P	1*
Messerschmitt-Bolk- Ow Blohm	HF20	Hansa HFB 320	2T	2
Mitchell (See Rockwell International)				
Mitsubishi Heavy Industries	MU2	Model MU2	2T	1*
	MU3	Model MU300 (Diamond models only. For Beech Jet models see Beechcraft above.)	2T	2
Mooney Aircraft Corp.	MK20	(includes all models)	1P (amended 2004/03/01)	1
Morane Saulnier	MS76	MS-760 Paris Jet (amended 2006/12/30)	2T	1*
Moravan Ltd.	O242	Zlin model Z242L	1P	1
Neico Aviation Incorp.	LC20	Lancair 235/320/360	1P	1* (amended 2002/03/01)
	LC25 (amended 2004/03/01)	Lancair ES Lancair Super ES (amended 2004/03/01)	1P (amended 2004/03/01)	1* (amended 2004/03/01)
	LC30	Lancair IV (all models)	1P	1*
	LC30T (amended 2006/06/30)	Lancair IV Propjet	1T	1*
	LCLE (amended 2006/06/30)	Lancair Legacy	1P	1*
Nihon Aeroplane Manuf.	YS11	All model YS11/YS11A	2T	2
Noorduyn Aviation Ltd.	N06	Norseman (all mark IV, V and VI; UC64)	1P (amended 2004/03/01)	1
Nord	ND26	Super Broussard 260 (amended 2006/12/30)	2P	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
North American	F86	Sabre	1T	1*
	NAT6	Harvard (AT6, Texan)	1P (amended 2004/03/01)	1
	P51	Mustang	1P (amended 2004/03/01)	1*
Partenavia Costruzioni Aeronautiche S.P.A.	PN68	Observer	2P (amended 2004/03/01)	1
Piaggio Rinaldo	P136	Royal Gull (model P136)	2P (amended 2004/03/01)	1
	P180	Avanti	2T	1*
Pilatus	PC6P (amended 1998/06/01)	Porter (all model PC-6 piston)	1P (amended 2004/03/01)	1
	PC6T (amended 1998/06/01)	Turbo Porter (all model PC-6 Turbine)	1T	1
	PC12 (amended 1998/06/01)	Pilatus 12	1T	1*
Piper Aircraft Corp.	PA11	Cub	1P (amended 2004/03/01)	1
	PA12	Super Cruiser	1P (amended 2004/03/01)	1
	PA14	Family Cruiser	1P (amended 2004/03/01)	1
	PA16	Clipper	1P (amended 2004/03/01)	1
	PA17	Vagabond (includes PA15)	1P (amended 2004/03/01)	1
	PA18	Super Cub	1P (amended 2004/03/01)	1
	PA20	Pacer	1P (amended 2004/03/01)	1
	PA22	Tri Pacer/Colt	1P (amended 2004/03/01)	1
	PA23	Apache	2P (amended 2004/03/01)	1
	PA24	Comanche	1P (amended 2004/03/01)	1
	PA25	Pawnee	1P (amended 2004/03/01)	1
	PA28	Cherokee	1P (amended 2004/03/01)	1
	PA3	Cub Trainer	1P (amended 2004/03/01)	1
	PA30	Twin Comanche	2P	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
			(amended 2004/03/01)	
	PA31	Navajo	2P (amended 2004/03/01)	1
	PA32	Cherokee Six	1P (amended 2004/03/01)	1
	PA34	Seneca	2P (amended 2004/03/01)	1
	PA36	Brave	1P (amended 2004/03/01)	1
	PA38	Tomahawk	1P (amended 2004/03/01)	1
	PA39	Twin Comanche (CR)	2P (amended 2004/03/01)	1
	PA42	Cheyenne III/IV/400LS	2T	1*
	PA44	Seminole	2P (amended 2004/03/01)	1
	PA46	Malibu	1P (amended 2004/03/01)	1
	PA46T (amended 2002/03/01)	Meridian	1T	1
	PA60	Aerostar 600 Pressurized (includes TS6P)	2P (amended 2004/03/01)	1
	PARO	Cherokee Arrow	1P (amended 2004/03/01)	1
	PAT4	PA-31T3 (T-1040)	2T	1
	PAYE	Cheyenne I/II	2T	1
	PAZT	Aztec	2P (amended 2004/03/01)	1
Pitts	PI2	Pitts Special (includes S1)	1P (amended 2004/03/01)	1
Polskie Zakłady Lotnicze (PZL)	PO18	Dromader	1P (amended 2004/03/01)	1
	POW4	Wilga	1P (amended 2004/03/01)	1
Private Explorer (amended 2006/06/30)	PREX	Private Explorer	1P	1*
Republic	RC3	Seabee	1P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Rockwell International	ACB1	Ag Commander B-1 (Snipe Commander)	1P (amended 2004/03/01)	1
	ACS2	Ag Commander S-2 (Snow Commander, Aero Commander)	1P (amended 2004/03/01)	1
	AC10	Darter	1P (amended 2004/03/01)	1
	AC12	Aero Commander 112	1P (amended 2004/03/01)	1
	AC14	Aero Commander 114	1P (amended 2004/03/01)	1
	AC20	Aero Commander 200	1P (amended 2004/03/01)	1
	AC50	Commander 500 (all model 500 and Shrike Commander)	2P (amended 2004/03/01)	1*
	AC60	Grand Commander (all piston powered unpressurized 600 series)	2P (amended 2004/03/01)	1*
	AC68	Super Commander (all piston powered pressurized 600 series)	2P (amended 2004/03/01)	1*
	AC69	Turbo Commander (all turbine powered pressurized 600 series)	2T	1*
	AC72	Alt-Cruiser	2P (amended 2004/03/01)	1
	AC84	Turbo Commander 840/980/1000	2T	1*
	B25	Mitchell	2P (amended 2004/03/01)	1*
	FA30 (amended 2000/06/01)	Rockwell Commander 700	2P (amended 2004/03/01)	1
	JC21	Jet Commander 1121	2T	2
	N145	Navion	1P (amended 2004/03/01)	1
	N265	Sabreliner (all series 265)	2T	2
	T28	NA260 Trojan	1P (amended 2004/03/01)	1
	WW23	Westwind 1123	2T	2
	WW24	Westwind 1124	2T	2

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Rolls Industries (amended 2004/03/01)	PEH (amended 2004/03/01)	12-EH (amended 2004/03/01)	1P (amended 2004/03/01)	1 (amended 2004/03/01)
Rutan Aircraft Factory	VZ10	Vari-EZE/Long EZE	1P	1
Saab-Scania	SF34	SAAB 340 (all)	2T	2
Saunders Aircraft Corp.	ST27	Saunders ST27	2T	2
Scottish Aviation	SC2	Twin Pioneer	2P (amended 2004/03/01)	1
	BA31	Jetstream	2T	2
Sequoia Aircraft Corp.	F8L	Falco	1P	1
Seawind	SEAW (amended 1998/06/01)	Seawind 3000	1P	1*
Short Bros. and Harland Hd.	SH33	Short SD3-30	2T	2
	SH36	Short 360	2T	2
	SH7	Skyvan SBH-SC7	2T	1
Smyth Aircraft (amended 2004/03/01)	SIDE (amended 2004/03/01)	Sidewinder (amended 2004/03/01)	1P (amended 2004/03/01)	1* (amended 2004/03/01)
Socata (amended 2006/12/14)	TB09	Tampico (amended 2006/12/30)	1P	1
	TB10	Tobago (amended 2006/12/30)	1P	1
	TB20	Trinidad (Models 20 and 21) (amended 2006/12/30)	1P	1
	TB70	TBM 700 (amended 2006/12/30)	1T	1*
	TB200	TB200 (amended 2006/12/30)	1P	1
Stinson Aircraft Co.	ST10	All model 9 and 10	1P (amended 2004/03/01)	1
	ST75	Voyager (Station Wagon)	1P (amended 2004/03/01)	1
	ST77	Reliant (Vultee)	1P (amended 2004/03/01)	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Stoddard-Hamilton Aircraft Co.	GL15 (amended 2002/03/01)	Glasair I (all models)	1T	1*
	GL20	Glasair II (all models)	1P	1* (amended 2000/06/01)
	GL25	Glasair III (all models)	1P	1*
	GL25T (amended 2002/12/01)	Glasair III GL25T (amended 2002/12/01)	1T (amended 2002/12/01)	1* (amended 2002/12/01)
Supermarine	SPIT	Spitfire (all marks)	1P (amended 2004/03/01)	1*
	STRA	Stranraer	2P (amended 2004/03/01)	2
Swearingen Aircraft (See Fairchild Aircraft)				
Taylorcraft	TC19	Sportsman 19	1P (amended 2004/03/01)	1
TeamRocket (amended 2006/06/30)	TRF1	F1	1P	1*
Ted Smith Aircraft	TS60	Aero Star (unpressurized)	2P (amended 2004/03/01)	1
Thurston, Schweizer, Teal Aircraft Corp.	TEAL	TSC-1A, TSC-1A1, TSC-1A2	1P (amended 2004/03/01)	1
Trident Aircraft Ltd.	TR1	Trigull	1P (amended 2004/03/01)	1
Velocity	VELO (amended 1998/06/01)	All models (amended 2000/06/01)	1P	1*
Vickers (See British Aircraft Corp.)				
Weatherly (See Best Aviation)				

Aircraft Type Designators - 2. Helicopters

(amended 2006/12/30)

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Aerospatiale-SNIAS Sud Aviation (See Eurocopter) (amended 2006/06/30)				
Agusta (amended 2006/06/30)	A109	Agusta A109A, A109E	2T	1
	A119	Agusta A119	1T	1
	A139	Agusta AB139 (amended 2006/12/30)	2T	2
Bell Helicopters	BH04	Iroquois(all model 204; 205;and CH-118; H-1 Series)	1T	1
	BH06	Jet Ranger (all model 206; CH-136; H-58 series; Kiowa)	1T	1
	BH06T	Model 206 Twin	2T	1
	BH12	Bell 212 series (all CH-135; H-1N series)	2T	1 VFR / 2 IFR
	BH214	Bell 214 series (all models except 214ST)	1T	1
	BH22	Bell 222; 222B; 222U	2T	1
	BH23	Textron (Model 230)	2T	1
	BH41	Bell 412	2T	1 VFR / 2 IFR
	BH47	Bell 47 series (all model 47 series; H-13; Ranger)	1R	1
	BH47T	Turbine powered BH47	1T	1
	BH407 (amended 1998/03/23)	Bell B407	1T (amended 2000/06/01)	1
	BH427 (amended 2000/06/01)	Bell B427	2T	1
	BH430 (amended 1998/03/23)	Bell B430	2T	1
	BHST	Bell 214ST	2T	1 VFR / 2 IFR (amended 2004/03/01)

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
Boeing (Vertol) Company Ltd.	HV07	Labrador (all model 107; H-46; Seaknight)	2T	2
	HV34	Chinook (all model 114; H-47 series)	2T	2
	BV44	All model 42/44 (H-21 series)	1P (amended 2004/03/01)	1
Brantly Helicopter Corp. HB42	All model B-2	1R	1	
	HB43	All model 305	1P (amended 2004/03/01)	1
Bristol	BR71	Sycamore 171	1P (amended 2004/03/01)	1
Canadian Home Rotors Inc. (amended 2004/03/01)	BABY (amended 2004/03/01)	Safari (Baby Belle) (amended 2004/03/01)	1P (amended 2004/03/01)	1 (amended 2004/03/01)
Cessna Aircraft Co.	C1C	Skyhook (all models)	1P (amended 2004/03/01)	1
Doman Helicopters Inc.	DM52	All model D-10B	1T	1
Eurocopter (Aerospatiale-SNIAS Sud Aviation) (amended 2006/06/30)	EC20	EC 120B	1T	1
	EC30 (amended 2002/12/01)	EC 130 B4 Astar (all models SA350 Series) (amended 2004/03/01)	1T (amended 2002/12/01)	1 (amended 2002/12/01)
	EC55 (amended 2004/03/01)	EC 155B (amended 2004/03/01)	2T (amended 2004/03/01)	1 (amended 2004/03/01)
	S313 (amended 2006/06/30)	Alouette II (SE313/3130)	1T	1
	S315 (amended 2006/06/30)	Alouette III Model 315	1T	1
	S316 (amended 2006/06/30)	Alouette III Model 316/3160	1T	1
	S318 (amended 2006/06/30)	Alouette II Model SA318	1T	1
	S319 (amended 2006/06/30)	Alouette III Model 319	1T	1
	S330 (amended 2006/06/30)	Puma (all model SA330)	2T	1VFR/2 IFR

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	S332 (amended 2006/06/30)	Super Puma all model SA332)	2T	2
	S342 (amended 2006/06/30)	Gazelle (all model SA341 and 342)	1T	1
	S350 (amended 2006/06/30)	Astar (all model SA350 series)	1T	1
	S355 (amended 2006/06/30)	Twin Star (all model SA355 series)	2T	1
	S360 (amended 2006/06/30)	Dauphin (all model SA360 series)	1T	1
	S365 (amended 2006/06/30)	Dauphin (all model SA365 series)	2T	1 VFR/2 IFR
	HU60 (amended 2006/06/30)	HU60	1T	1
Enstrom	EH28	Model F-28	1P (amended 2004/03/01)	1
	EH48	Model 480	1T	1
Hiller Aircraft Division	HL11	All model FH-1100 (OH-5A series)	1T	1
	HL12	All model UH-12 series (H-23 series)	1P (amended 2004/03/01)	1
	HL2T	Turbine powered HH12	1T	1
	HL36	All model 360 series	1P (amended 2004/03/01)	1
Kaman Aerospace Corp.	HK12	K-1200	1T	1
Kamov	KA32 (amended 1998/06/01)	Kamov KA32	2T	1 (amended 2002/03/01)
Mcdonnell-Douglas Helicopters (formerly Hughes)	HU30 (amended 1998/03/23)	All model 269/300 series and Schweizer Model 300C	1P (amended 2004/03/01)	1
	HU50	All model 369/500 series	1T	1
	HU52	Model 520N	1T	1

Manufacturer	Type Designator	Model	Number and Category of Engines	Minimum Crew Requirement
	HU60 (amended 1998/06/01)	HU60	1T	1
Messerschmidt	MBK7	Bolkow-Blohm 117	2T	1 VFR / 2 IFR
	MBH5	MBB 105 (Messerschmidt - Bolkow-Blohm)	2T	1
Revolution Helicopter (amended 2002/03/01)	M500	Revolution Mini 500	1P	1
Robinson Helicopter Co.	RH22	Robinson 22	1P (amended 2004/03/01)	1
	RH44	Robinson Model R44	1P	1
Rotorways	ROTO	Executive, Scorpion	1P (amended 2004/03/01)	1
	ROTOT (amended 2002/03/01)	Rotorway JetExec	1T	1
Schweizer (amended 2000/06/01)	HU33	Models 269D and 330SP	1T	1
Sikorsky Aircraft Division	SK51	All model S-51 series	1P (amended 2004/03/01)	1
	SK52	All model S-52 series	1P (amended 2004/03/01)	1
	SK55	All model S-55 series	1P (amended 2004/03/01)	1
	SK55T	Turbine powered S55	1T	1
	SK58	All model S-58 series	1P (amended 2004/03/01)	1
	SK58T	Turbine powered S58	2T	1
	SK61	All model S-61 series (HSS-2; CH-124; H-3; Sea King)	2T	2
	SK62	All model S-62 series	1T	1
	SK64	All model S-64 series	2T	2
	SK76	All model S-76 series	2T	1 VFR / 2 IFR
	SK92 (amended 2006/06/30)	All model S-92 series	2T	2

Aircraft Type Designators - 3. Gyroplanes

(amended 2006/12/30)

Manufacturer	Type Designator	Model	Number and Category of Engines
American Autogyro (amended 2006/12/30)	SPHA	SparrowHawk (amended 2006/12/30)	1P
Air Command	AIRC	all models	1P (amended 2004/03/01)
Air and Space	A18A	all model 18A	1P (amended 2004/03/01)
Avian	VA18	all model 2/180	1P (amended 2004/03/01)
Bensen	BENS	2 seat only	1P (amended 2004/03/01)
Cobra	CO447	COBRA 447 (2 seat)	1P (amended 2004/03/01)
Haseloh	JB2	all models	1P (amended 2004/03/01)
Mcculloch Aircraft Corp	MJ2	all model J12 series	1P (amended 2004/03/01)
Rotary Air Force	RAF20	RAF2000	1P (amended 2004/03/01)
Snobird Adventure	SNOB	Snobird Adventure (2 seat)	1P (amended 2004/03/01)
Vancraft Copters	VANC	Vancraft Lightning 2 place	1P (amended 2004/03/01)

Aircraft Type Designators - 4. Gliders and Powered Gliders

Manufacturer	Type Designator	Model	Number and Category of Engines
Burkhardt-Grob	GR09	Grob 109	1P (amended 2004/03/01)
Glaser-Dirks	DG40	DG 400	1P (amended 2004/03/01)
Intreprinderea De Constructii Aeronautice, Romania	IC8M	IC8M Romania	1P (amended 2004/03/01)
Let Aircraft Corp	LT13	Blanik L-13	Nil
Scheibe-Flugzeugbau	SF25	Powered glider	1P (amended 2004/03/01)
Schleicher	FS24	ASW 24	Nil
	SE14	ASK 14	1P (amended 2004/03/01)
Schweizer Aircraft Corp	SZ22	Schweizer 2-22	Nil
	SZ26	Schweizer 1-26	Nil
	SZ32	Schweizer 2-32	Nil
	SZ33	Schweizer 2-33	Nil
Sportavia Putzer	SR5	all model RF-5	1P (amended 2004/03/01)

Aircraft Type Designators - 5. Balloons

Type Designator	Manufacturer- Model	Number and Category of Engines
AS105	AS105	Nil
AS90	AS90	Nil
COLT	COLT	Nil
SPAS	SPAS	Nil

Similar Aircraft Types - 1. Types which Require Ground Training Only

Beechcraft	B300/B350	Ground training covering electrical systems differences, annunciator panel differences and crew requirements for operation over 12,500 pounds or commercial operations ¹
Boeing	B757/767	Ground training on systems, limitations, engines, weight and balance differences
Cessna	C500/C501	Ground training covering single vs. two-pilot equipment, roles ¹
	C550/C551	Ground training covering single vs. two-pilot equipment, weight limitations, roles ¹
	C550/C560	Ground training covering systems differences, limitations, weight and balance
Fairchild (amended 2000/06/01)	SW4/SW5	Ground training covering systems differences
Lear	LR23/24/25/28/29	Ground training covering systems, limitations, weight and balance
	LR35/LR36	Ground training covering fuel capacity, weight and balance

² An approved simulator may be used for meeting the flight training requirement

¹ Where switch is from single-pilot mode, type rating or ATPL-A examinations may be required

Similar Aircraft Types - 2. Types that Require Ground and Flight Training², but no PPC

Beechcraft	B300/B1900	Ground training covering systems differences, cockpit layout, limitations, weight and balance; flight training covering handling differences above FL250
	B350/B1900	Ground training covering systems differences, cockpit layout, limitations, weight and balance, crew requirements ¹ ; flight training covering handling differences
British Aerospace	BA31/BA32	Ground and flight training covering systems, limitations and handling differences
Cessna	C500, 501/C550	Ground and flight training covering systems differences, limitations, performance, weight and balance, roles ¹
	C500, 501/C560	Ground and flight training covering systems differences, limitations, performance, weight and balance, roles ¹
Lear	LR20/30 series	Ground and flight training covering systems differences, weight and balance, limitations and handling
	LR20 series/LR55	Ground and flight training covering systems differences, weight and balance, limitations and handling
	LR31/LR35/36	Ground and flight training covering systems differences, weight and balance, limitations and handling
	LR35, 36/LR55	Ground and flight training covering systems differences, weight and balance, limitations and handling

² An approved simulator may be used for meeting the flight training requirement

¹ Where switch is from single-pilot mode, type rating or ATPL-A examinations may be required



CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 422 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

Canada

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NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS

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422 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

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Foreword

The Personnel Licensing and Training Standards Respecting Air Traffic Controller Licences and Ratings outline the basic specifications for the licensing of persons who hold Air Traffic Controller Licences or to whom such licences may be issued in compliance with Subpart 402 of the Canadian Aviation Regulations.

The Standards are in accordance with the International Civil Aviation Organization (ICAO) specification. Canada, with one exception, requires the minimum age for the issue of an Air Traffic Controller Licence to be 19 years.

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 422 - AIR TRAFFIC CONTROLLER LICENCES AND RATINGS

DIVISION I - GENERAL

422.03 *Issue and Endorsement of Air Traffic Controller Licences and Ratings*

General

(1) An applicant shall, during the twelve month period immediately preceding the date of issue of a licence:

- (a) submit an application; and
- (b) complete all tests and examinations for issuance of a licence.

(2) Ratings to an Air Traffic Controller Licence, which may be endorsed for one or more specified operational locations, comprise:

- (a) Airport control;
- (b) Terminal control;
- (c) Area Control; and
- (d) Oceanic control

(3) Prior to the issue of an Air Traffic Controller Licence or the endorsement of an Air Traffic Controller Licence with a Rating, and before any privileges may be exercised, an applicant shall have met all requirements set out in this section and in the Regulations for the endorsement of a particular rating at a specific location.

(4) An applicant shall have demonstrated ability to perform those functions applicable to the privileges to be granted.

(5) Application for the issue of a licence or endorsement of a rating or location shall be made on Form 26-0145 accompanied by the applicable progress report on Form 28-0130 or 28-0131.

Licences

① Citizenship

An applicant's citizenship must be shown on his Air Traffic Controller licence in accordance with ICAO requirements and must therefore be determined prior to issue of the licence.

(a) Proof of Citizenship

The following documents are acceptable as proof of citizenship:

- (i) a citizenship certificate,
- (ii) a valid passport,
- (iii) a birth or baptismal certificate issued in Canada or in a State whose citizens do not require a passport to travel in Canada. A copy certified by the issuing State or duly notarized is acceptable,
- (iv) a Canadian Immigration Record and Visa, Form IMM 1000, issued to a landed immigrant by the Department of Citizenship and Immigration, and
- (v) an aviation personnel licence showing the citizenship of the holder and issued by the State of which he is a citizen.

(2) Requirements**(a) Minimum Age**

An applicant shall be not less than nineteen years of age. When proof of age is required it may be provided in one of the following forms:

- (i) a Canadian citizenship certificate,
- (ii) a birth certificate or copy thereof certified by the issuing authority, or a duly notarized copy thereof,
- (iii) where a birth certificate cannot be produced, a baptismal certificate supported by a statutory declaration in which the applicant declares his age will be accepted, or
- (iv) a valid Canadian passport.

(b) Medical Fitness

An applicant shall have completed the medical examination requirements in accordance with the Personnel Licensing and Training Standards Respecting Medical Requirements and be in possession of a Category 1 or 2 Medical Certificate valid for an Air Traffic Controller Licence.

(c) Knowledge

An applicant shall have successfully completed Air Traffic Controller training and basic theoretical training and written examinations administered by an institution recognized by the Minister as being qualified to administer such training on:

- (i) “Air law” - the *Canadian Aviation Regulations* (CARs) and *Air Traffic Control Manual of Operations* (ATC MANOPS),
- (ii) “Air traffic control equipment” - the basic principles, use and limitations of radar and satellite or digital/global positioning equipment,
- (iii) “General knowledge” - the performance of various aircraft types relative to air traffic control procedures, including the avoidance of wake turbulence,

- (iv) "Human performance and limitations" - human performance and limitations relevant to air traffic control,
- (v) "Language" - the language or languages nationally designated for use in air traffic control and ability to speak such language or languages without accent or impediment which would adversely affect radio communication,
- (vi) "Meteorology" - meteorology, including an appreciation of synoptic charts, weather reports and forecasts and the use of altimeters,
- (vii) "Navigation" - the principles of air navigation, the use and limitations of radio, visual and other aids to air navigation,
- (viii) "Operational procedures" - air traffic control and communication procedures (routine, non routine and emergency); use of the relevant aeronautical documentation; safety practices associated with flight.

(d) Experience

An applicant shall have met all approved ATC training course standards and requirements for the endorsement of one or more of the Ratings.

(e) Language

An applicant shall meet the language requirements set out in 402.03(3) and (4).

(3) Photograph

(amended 2008/04/17)

A photograph submitted by an applicant for an air traffic controller licence shall meet the following requirements:

(amended 2008/04/17)

(a) meet the specifications of a passport photograph pursuant to Passport Canada;
(amended 2008/04/17)

(b) taken within 12 months preceding the application;
(amended 2008/04/17)

(c) provide on the back of the photograph, the name of the applicant; and
(amended 2008/04/17)

(d) provide on the back of the photograph, the name, signature and declaration from a person who verifies that the photograph is a true likeness of the applicant, which person can be one of the following:
(amended 2008/04/17)

(i) a person who has a delegation of authority issued by the Minister of Transport to perform functions in support of civil aviation;
(amended 2008/04/17)

(ii) a Transport Canada Civil Aviation employee who has been assigned these duties by a manager, or
(amended 2008/04/17)

(iii) a person who is considered to be an eligible guarantor pursuant to Passport Canada.
(amended 2008/04/17)

Information Note: *For information concerning the specifications of a passport photograph or eligible guarantor pursuant to Passport Canada, you may visit the Passport Canada web site at: <http://www.pptc.gc.ca>.*

(amended 2008/04/17)

(4) Language Proficiency Scale

(amended 2008/04/17)

LANGUAGE PROFICIENCY SCALE
EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS
(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Expert Level describes proficiency more advanced than the minimum required standard	Pronunciation, stress, rhythm, and intonation infrequently are influenced by the first language or regional variation, but almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.

LANGUAGE PROFICIENCY SCALE
EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS
(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Operational Level describes the minimum proficiency acceptable for radiotelephony communication	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation, to the extent that they sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

LANGUAGE PROFICIENCY SCALE

EXPERT, OPERATIONAL AND BELOW OPERATIONAL LEVELS

(amended 2008/04/17)

LEVEL	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
Below Operational Level describes a level of proficiency below the level required	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation, to the extent that they frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are limited and the word choice often inappropriate. Often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic of situational complication or an unexpected turn of events.	Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.

Information Note: Language proficiency in English or French will be annotated on the licence, however, the level of proficiency will not be indicated.
(amended 2008/04/17)

Ratings

An applicant shall demonstrate the level of knowledge, judgement, experience and skill for the endorsement of the Rating applied for as follows:

(1) Airport Control Rating

(a) Knowledge

An applicant for an Airport Control Rating shall have successfully completed a course administered by an institution that is recognized by the Minister as being qualified to administer such training and have demonstrated knowledge of the particular operational locale for which the rating is desired through successful completion of written examinations on:

- (i) airport layout;
- (ii) airspace and control zone rules;
- (iii) co-ordination procedures between the airport control tower unit and other traffic control units;
- (iv) available electronic aids to navigation and air traffic control;
- (v) ATC equipment in the Control Tower and its operational use;
- (vi) terrain prominent landmarks and air navigation facilities within a 25 nautical mile radius of the centre of the airport;
- (vii) regular aircraft operating characteristics and traffic flows and airspace agreements;
- (viii) meteorological phenomena peculiar to that region; and
- (ix) search and rescue plans and emergency procedures;

(b) Experience

During the twelve months preceding the endorsement of an Airport Control Rating, the applicant shall have:

- (i) successfully completed Air Traffic Control training courses administered by an institution that is recognized by the Minister as being qualified to administer such training pursuant to the appropriate training document; and
- (ii) served under the supervision of a qualified airport controller for:
 - (A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence;
 - (B) not less than one month in the case of the initial issue of an Airport Control Rating to the holder of a licence endorsed with a Terminal Control or Area Control Rating;
 - (C) a period of time necessary to demonstrate competence in the case of the endorsement of an additional location to the holder of a licence with an existing Airport Control Rating.

(2) Terminal Control Rating

(a) Knowledge

An applicant for a Terminal Control Rating shall have successfully completed a course administered by an institution that is recognized by the Minister as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the rating is desired through successful completion of written examinations on:

- (i) runway layouts at airports within the Terminal Control Area (TCA);
- (ii) control zone and terminal control area airspace rules and procedures;
- (iii) co-ordination procedures and airspace agreements between the Terminal Control Unit and other underlying and adjacent air traffic control units;
- (iv) available electronic aids to navigation and air traffic control;
- (v) ATC equipment in the Terminal Control Unit and its operational use;
- (vi) prominent terrain and landmarks, air navigation aids and ATC facilities within a 50 nautical mile radius beyond the airspace under the jurisdiction of the Terminal Control Unit;
- (vii) regular aircraft operating characteristics and air traffic flows;
- (viii) meteorological phenomena peculiar to that Terminal Control Area and adjacent regions;
- (ix) search and rescue alerting plans and emergency procedures; and
- (x) holding, approach, missed approach and departure procedures, including protected airspace configurations.

(b) Experience

During the twelve months preceding the endorsement of a Terminal Control Rating, the applicant shall have:

- (i) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and
- (ii) served under the supervision of a qualified terminal controller for;
 - (A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence;
 - (B) not less than one month in the case of the initial issue of a Terminal Control Rating to the holder of a licence endorsed with an Airport Control or Area Control Rating; or
 - (C) a period of time as necessary to demonstrate competence in the case of the endorsement of an additional location to the holder of a licence with an existing Terminal Control Rating.

(3) Area Control Rating

(a) Knowledge

An applicant for an Area Control Rating shall have successfully completed a course administered by an institution that is recognized by the Minister as being qualified to administer such training and have demonstrated knowledge of the particular geographical area for which the rating is desired through successful completion of written examinations on:

- (i) runway layouts for airports to which approach and departure clearances may be directly issued by an Area Control Centre sector controller;
- (ii) the structure and rules applicable to all airspace under the jurisdiction of that area control centre;
- (iii) co-ordination procedures and airspace agreements between the area control centre and other underlying and adjacent air traffic control units;
- (iv) available electronic aids to navigation and air traffic control;
- (v) ATC equipment in the ACC and its operational use;
- (vi) prominent terrain and landmarks, air navigation aids and ATC facilities underlying, and within 100 NM adjacent to, the airspace under the jurisdiction of that area control centre;
- (vii) regular aircraft operating characteristics and air traffic flows;
- (viii) meteorological phenomena peculiar to that and adjacent regions;
- (ix) the locations and search and rescue plans and procedures for alerting emergency services; and
- (x) holding, approach, missed approach and departure procedures.

(b) Experience

During the twelve months preceding the endorsement of an Area Control Rating, the applicant shall have:

- (i) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training; and
- (ii) served under the supervision of a qualified area controller for:
 - (A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence;
 - (B) not less than two months in the case of the initial issue of an Area Control Rating to the holder of a licence endorsed with an Airport Control or Terminal Control Rating; or

(C) a period of time as necessary to demonstrate competence in the case of the endorsement of an additional location of the holder of Licence with an existing Area Control Rating.

(4) Oceanic Control Rating

(a) Knowledge

An Applicant for an Oceanic Control Rating shall have successfully completed a course administered by an institution that is recognized by the Minister as being qualified to administer such training and have demonstrated knowledge of the particular area for which the rating is desired through successful completion of written examination on:

- (i) the structure and rules applicable to all oceanic airspace under the jurisdiction of that oceanic control unit;
- (ii) co-ordination procedures and airspace agreements between the area control centre in which the oceanic control unit operates and all other adjacent oceanic, area control centre and ATC units at international airports underlying or within 500 NM miles of that unit's oceanic controlled airspace;
- (iii) international standards and ICAO recommended practices concerning the operation of aircraft over large bodies of water;
- (iv) available electronic aids to air navigation and air traffic control;
- (v) ATC equipment and its use in the oceanic unit(s) and adjacent or co-located area control centre;
- (vi) air navigation facilities and air traffic services available at all airports underlying and at international airports within 500 NM miles of that sector's oceanic controlled airspace;
- (vii) regular aircraft operating characteristics and traffic flows along minimum time tracks;
- (viii) meteorological phenomena peculiar to that oceanic airspace and adjacent regions;
- (ix) search and rescue plans and the locations and procedures for alerting national and international emergency services; and
- (x) holding, delay and alternate routing procedures which may be employed as necessary for safe operations.

(b) Experience

During the twelve months preceding the endorsement of an Oceanic Control Rating, the applicant shall have:

- (i) successfully completed ATC training courses administered by an institution that is recognized by the Minister as being qualified to administer such training;
- (ii) served under the supervision of a qualified oceanic controller for:

- (A) not less than three months in the case of the initial issue of an Air Traffic Controller Licence;
- (B) not less than two months in the case of the initial issue of an Oceanic Control Rating to the holder of a licence endorsed with an Area Control Rating; or
- (C) a period of time as necessary to demonstrate competence in the case of the endorsement of a previous holder of an existing Area Control Rating with a prior Oceanic Control endorsement or oceanic unit qualification at that ATC unit.



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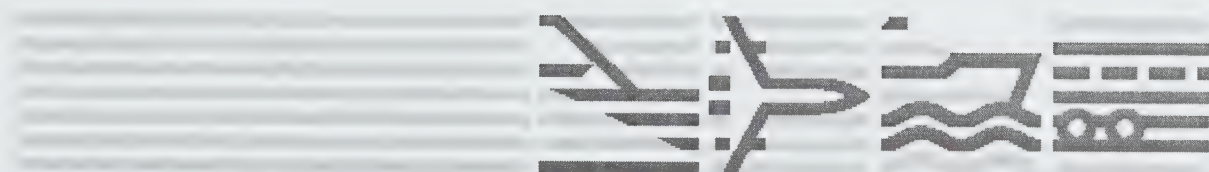
Transports Canada
Sécurité et sûreté

CARs

CANADIAN AVIATION REGULATIONS

PERSONNEL LICENSING AND TRAINING STANDARDS

424 - MEDICAL REQUIREMENTS



Canada

NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS

[illegible]

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STANDARD 424 - MEDICAL REQUIREMENTS

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Foreword

The Personnel Licensing and Training Standards Respecting Medical Requirements outline the basic specifications for the medical requirements for applicants for or holders of Personnel Permits, Licences and Ratings in compliance with Subpart 404 of the *Canadian Aviation Regulations*.

PART IV - PERSONNEL LICENSING AND TRAINING STANDARDS

424 - MEDICAL REQUIREMENTS

DIVISION I - GENERAL

424.01 Definitions

The words and expressions used in these Standards have the same meaning as in the General Provisions, Part I of the *Canadian Aviation Regulations* with the following additions or expanded explanations:

- “Civil Aviation Medical Examiner” (CAME) - means a physician appointed by the Minister to examine the medical fitness of candidates for issue or revalidation of Pilot and Canadian Civil Aviation Personnel Licences and who report their findings to the Civil Aviation Medicine Division. Generally such authorization applies to physicians in private practice who are appointed on an individual basis to provide the Civil Aviation Medical Examiner service in a particular area. However, limited authorization also applies to Flight Surgeons of the Canadian Forces for the examination of candidates who are members of the Canadian Forces, and to physicians in other countries provided the physician is authorized as a civil aviation medical examiner by a member State of the International Civil Aviation Organization.
- “medical category” - means the medical category classification relating to the degree of medical fitness necessary for the various aviation activities. i.e. A Medical Category 1 holder shall be considered fit for any licence for its respective duration of validity unless otherwise specified. It embraces all types of licence involving flying for hire and reward and is essentially the standard for the professional pilot.
- “medical certificate” (MC) - is a document issued periodically to validate aviation licences which require special standards of medical fitness as laid down in the Personnel Licensing Standards Respecting Medical Requirements. MCs are issued by the Minister of Transport following receipt of a medical examination report assessed medically fit or fit subject to any restriction or limitation.
- “accredited medical conclusion” - is defined as the conclusion reached by one or more medical experts with specialized knowledge or training in aviation medicine, acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with specialists in flight operations or other experts as necessary specialists in flight operations, or other experts as necessary.
- “eye specialist” - means either an ophthalmologist or optometrist, unless otherwise specified.
- “Civil Aviation Medicine Division Medical Staff” - means the Regional Aviation Medical Officer, the Aviation Medical Officer, or Headquarters Medical Staff, but does not include Civil Aviation Medical Examiners.

(i) The initial test for private pilot applicants may, at the discretion of the RDAL be delegated to a suitably qualified flight instructor, except when a prosthesis is required to be worn by the applicant or the aircraft is required to be modified.

(ii) In the case of an air traffic controller, the practical test shall be conducted in accordance with the Report of Medical Practical Hearing Test (form 26-0503).
(amended 1999/03/01)

(5) The following are examples of the most common cases, but not limited to these cases, where a practical test shall be required before flexibility of the Medical Standards is applied:

(a) Amputee and Physically-Handicapped Applicants

(i) Applicants who have had an amputation of a limb or part of a limb, or have some other physical disability, may be considered fit for certain types of permits or licences through the application of flexibility.

(ii) The practical test will be conducted with the applicant occupying the seat designated in the Aircraft Flight Manual as the seat to be occupied by the pilot-in-command. Where the Aircraft Flight Manual does not specify the seat, it shall be understood to be the seat which, in accepted practice, is occupied by the pilot-in-command.

(iii) An applicant shall demonstrate the ability to compensate for physical deficiency and to perform competently a task or simultaneous tasks such as map reading, determining course, operating flight computer, conversation, simulating engine failure to estimate the applicant's susceptibility to distraction.

(iv) The practical test report shall include specific reference to:

(A) description of deficiency to be assessed;

(B) exercises required to be completed:

(I) ground,

(II) flight;

(C) weather conditions existing;

(D) aircraft type and seat occupied by the applicant;

(E) exercises completed;

(F) simultaneous tasks completed;

(G) details of any unusual procedures to compensate for deficiency;

(H) recommendation for issue or denial of a permit or licence, by type;

(I) any restrictions required to be entered on the permit or licence;

(J) duration of flight test.

(v) Where a restriction is applied to a permit or licence because of an amputation or other physical deficiency, further consideration will be given to a change in the restriction or its removal from the permit or licence where:

- (A) the applicant has accumulated sufficient flying experience; or
- (B) the addition of different types of aircraft of different undercarriage, flight control or cockpit configurations is desired.

(b) Monocular Applicants

(i) A monocular applicant is an applicant who has lost the use of one eye or whose central vision is such that it cannot be corrected to at least 20/200 (6/60). A monocular applicant shall be granted the issue or revalidation of those permits or licences, for which a Category 3 or lower medical is required, provided that the following conditions are met:

(A) on the initial request for flexibility, the applicant has undertaken an eye examination by an ophthalmologist whose report indicates that with respect to the better eye:

(I) the vision is not less than 20/200 (6/60) corrected to 20/30 (6/9) or better and the equivalent spherical error is not greater than plus or minus 5 diopters;

(II) the function of the eye and its adnexae shall be normal in all other respects;

(B) the applicant, following an adequate period of adaptation, has satisfactorily completed a practical (monocular) test conducted by the person designated by the RDAL demonstrating his ability to fly the type of aircraft in which the permit or licence is sought in a competent manner while maintaining an adequate look-out for other traffic and obstructions; and

(C) the licensing authority's medical advisors have recommended the issue of a permit or licence; and

(D) an eye specialist's report is required at each renewal of the permit or licence.

(ii) The practical test of flying ability shall confirm that the applicant has achieved sufficient adjustment to his monocular condition to perform the duties of a private pilot safely and with the degree of competence normally required and shall be required for:

(A) issue of a permit or licence to a monocular person;

(B) the first renewal after loss of binocular vision if the permit or licence was previously issued; and

(C) subsequent renewals where the eye specialist's report indicates significant deterioration of visual capability since the previous report.

(iii) The practical test is:

(A) required in addition to the medical examination for the issue of a Student Pilot Permit to monocular applicants; and

(B) considered, in conjunction with the medical examination reports, when assessing the visual acuity of the applicant for the Permit;

(iv) Evidence of a satisfactory practical test, is in the form of signed statement by the person conducting the test, confirming that the applicant is competent to perform the

normal and emergency manoeuvres appropriate to the type of aircraft in respect of which the permit or licence is sought:

(A) in a competent manner; and

(B) while maintaining an adequate look-out for other traffic and obstructions.

(v) The validity of a Medical Certificate shall be for the period normally applicable to the permit or licence, except for the Pilot Licence - Glider and Pilot Permit- Recreational which shall be valid for the same period as the Private Pilot Licence.

(vi) Monocular pilots may obtain a night rating subject to the following conditions:

(A) the applicant has completed the night and instrument flight time normally required for a night rating for a private pilot licence; and

(B) a flight instructor designated by the RDAL has certified that the applicant has been flight tested and been found to be capable of performing at night the normal and emergency manoeuvres appropriate to the type of aircraft in a competent manner while maintaining an adequate look-out for other traffic and obstructions.

(c) Substandard Vision in One Eye

(i) An applicant whose corrected central vision in one eye is less than 20/30 (6/9) but is at least 20/200 (6/60) shall be granted the issue or revalidation of a permit or licence in accordance with the Medical Requirements Standards provided that the following conditions are met:

(A) on the initial request for flexibility, the applicant has undertaken an eye examination by an eye specialist whose report indicates that the visual acuity in the better eye meets the vision standards for the permit or licence applied for or held;

(B) accredited medical conclusion indicates that the visual defect is unlikely to interfere with safe performance of duties related to the permit or licence considering pathogenesis of the condition, visual fields, etc.;

(C) the licensing authority is satisfied that any relevant ability, skill or experience of the applicant has been given due consideration. In certain cases a practical test shall be advised;

(D) an eye specialist's report shall be required annually if the condition causing the reduced vision is not stable.

(d) Paraplegic Applicants

(i) A paraplegic who fails to meet the physical requirement specified in the Medical Standards for Civil Aviation Personnel Licensing shall be issued a Student Pilot Permit, Pilot Permit and Pilot Licence for any category of aircraft except a Commercial, or Airline Transport Pilot Licence, provided the applicant meets the requirements set out in subparagraph (ii).

(ii) For determination of medical fitness, the applicant is required to provide:

(A) a report of satisfactory medical examination by a designated Civil Aviation Medical Examiner;

(B) a medical examination report, by selected medical specialist(s) identified by the CAME, which states that the condition of the applicant's trunk muscles is adequate for body control;

(C) medical information that the paraplegia is stabilized and is not due to underlying chronic or progressive disease;

(D) evidence of his ability to complete an external aircraft inspection, to emplane and deplane from an aircraft and to complete the cockpit check by personal demonstration and without assistance from another person to the person designated to conduct the practical test; and

(E) evidence of his ability to fly the aircraft in a competent manner in normal and emergency manoeuvres by personal demonstration to the person designated to conduct the practical test. The candidate's ability to bend to any position for the undertaking of required piloting tasks and the adequacy of the condition of the applicant's trunk muscles for body control shall also be assessed during the practical test. The candidate is required to remain in a normal sitting position during difficult flight, for example, in conditions of turbulence. Such demonstrations by the candidate will be without the use of any aids so that the paraplegic's remaining body control and strength may be fully assessed from a practical viewpoint. A shoulder harness shall be worn by the candidate;

(F) written evidence of satisfactory completion of the requirements in (D) and (E) shall be provided with a written recommendation from a Flight Instructor designated by the Regional Director Aviation Licensing prior to undergoing a Flight Test for issuance of a permit or licence.

(iii) The privileges of the Student Pilot Permit, Pilot Permit or Private Pilot Licence shall be restricted as follows:

(A) the licence shall be endorsed for those hand-controlled aircraft types in which the standard of skill has been satisfactorily demonstrated by flight test;

(B) the requirement to wear a shoulder harness and carry a serviceable emergency locator transmitter shall appear on the licence;

(C) the words "paraplegic" and "licence restricted" shall be entered on the Medical Certificate.

(iv) While the foregoing requirements have been implemented for the issue or revalidation of Pilot Permit - Recreational (Aeroplanes), a Private Pilot Licence (Aeroplanes) and Student Pilot Permit (Aeroplanes), these may be made to apply to other suitably modified aircraft.

(v) Due to the possibility of deterioration of the condition of the licence holder the validity period of a permit or licence shall be limited to twelve months.

NOTE: Limitations and restrictions which may appear on a permit, licence or medical certificate are listed in Appendix II.

DIVISION IV - MEDICAL FITNESS**424.11 *Minister's Assessment***

(1) Medical Examination Reports shall be assessed in accordance with these Standards by:

- (a) the Civil Aviation Medical Examiner; and
- (b) the Regional Aviation Medical Officer or the Aviation Medical Officer.

(2) Where specialist reports are required they may be referred to the Chief, Clinical Assessment, for further consultation.

(3) Where the assessment by the Regional Aviation Medical Officer, the Aviation Medical Officer, or the Chief, Clinical Assessment, is different than that of the Civil Aviation Medical Examiner, the assessment by the Regional Aviation Medical Officer, the Aviation Medical Officer or Chief, Clinical Assessment, shall apply.

424.12 *Reconsideration of Assessments*

(1) An applicant assessed unfit at the regional level may submit additional reports from Civil Aviation Medical Examiners, specialist examinations and laboratory reports for reconsideration of the assessment. The applicant may, in addition, request the Regional Aviation Medical Officer, or the Aviation Medical Officer to forward all reports and findings to the Chief, Clinical Assessment for presentation to the Aviation Medical Review Board.

(2) Appeal may be made to the Civil Aviation Tribunal where:

- (a) a permit, licence or medical certificate holder is assessed as being unfit to exercise the privileges of his licence, permit or certificate; or
- (b) a permit, licence or medical certificate is refused renewal.

DIVISION V - MEDICAL EXAMINERS**424.16 *Authority to Conduct Medical Examinations***

(1) Authorization is issued to physicians who are appointed on an individual basis to provide the Civil Aviation Medical Examiner service in a particular area. Authorization may also be issued to Flight Surgeons of the Canadian Forces for the examination of applicants who are regular members of the Canadian Forces or Air Cadets.

(2) A physician in another country, provided the physician is authorized as a civil aviation medical examiner by a Contracting State may also be authorized to examine the medical fitness of applicants. However, these physicians may not extend the validity period of an existing Medical Certificate.

424.17 Responsibilities of Medical Examiner**General**

(1) When conducting a medical examination of an applicant for the issuance or renewal of a medical certificate, the CAME shall:

(amended 2003/06/01)

(a) examine the applicant in accordance with:

(i) medical practice recognized by the medical profession, and

(ii) the personnel licensing standards;

(amended 2003/06/01)

(b) record in a medical examination report:

(i) the CAME's clinical findings, and

(ii) where the applicant meets the requirements of any category of medical certificate, as set out in this section, that category; and

(c) submit to the Minister:

(i) the medical examination report, and

(amended 2003/06/01)

(ii) any other medical report required for the purpose of establishing medical fitness to hold a permit, licence or rating.

(2) Where an applicant meets the medical standards for renewal of his or her medical certificate, the CAME shall sign, date and stamp the medical certificate with his or her official stamp, if any, indicating that the applicant is "fit".

(amended 2003/06/01)

(3) The medical examination shall be sufficiently thorough so as to determine whether the applicant meets the requirements in respect of the category of medical certificate that is applied for or in respect of which a validation is sought.

(amended 2003/06/01)

(a) The purpose of the medical examination is to determine whether an applicant meets the standards that apply in respect of the issuance of the Medical Certificate that is needed to issue a particular permit, licence or rating. The standards that are applicable in respect of the issuance and the renewal of a permit, licence or rating are basically the same.

(b) A Civil Aviation Medical Examiner shall be familiar with aeromedical assessment, and shall possess some practical knowledge of flight duties and the flight environment.

(c) It shall be the responsibility of the Civil Aviation Medical Examiner to examine the Applicant carefully.

(d) Where the Civil Aviation Medical Examiner cannot reach a conclusion concerning the fitness of an applicant he shall omit the allocation of a category and refer the Medical Examination Report to the Civil Aviation Medical Staff for assessment or further advice.

(e) The examiners report is made on “Civil Aviation Medical Examination Report” Transport Canada Form 26-0010 (Appendix I). The form requires the signature of both the applicant and the Civil Aviation Medical Examiner. Medical Examiners in other countries may use the above form or an equivalent form of that country.

(f) Medical examination reports and pertinent specialist or laboratory reports shall be forwarded to the appropriate Regional Office for the attention of the Civil Aviation Medicine Division Medical Staff.

(4) Physical and Mental Requirements for Medical Categories

(amended 2003/06/01)

An applicant shall be granted the highest assessment possible on the basis of the finding recorded during the medical examination. An applicant desiring a medical category higher than that necessary for the type of permit, licence or rating requested shall so inform the Civil Aviation Medical Examiner. Where specialist examinations or laboratory tests are required to determine fitness for a higher assessment, these may be arranged by the Civil Aviation Medical Examiner, with the concurrence of the applicant.

The following indicates the standard an applicant must attain for the issuance of a Medical Certificate for each medical category:

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>This category applies to the issue or revalidation of</p> <p>Airline Transport Pilot Licence</p> <p>Commercial Pilot Licence</p> <p>Flight Engineer Licence (amended 2007/12/30)</p>	<p>This category applies to the issue or revalidation of</p> <p>Air Traffic Controller Licence</p>	<p>This category applies to the issue or revalidation of</p> <p>Student Pilot Permit</p> <p>Helicopters</p> <p>Gyroplane</p> <p>Balloon</p> <p>Pilot Permit</p> <p>Gyroplane</p> <p>Private Pilot Licence</p> <p>Aeroplane</p> <p>Helicopter</p> <p>Pilot Licence</p> <p>Balloon</p> <p>Flight Instructor Rating</p> <p>Glider</p> <p>Ultra-light Aeroplanes</p>	<p>This category applies to the issue or revalidation of</p> <p>Student Pilot Permit</p> <p>Aeroplane</p> <p>Pilot Permit</p> <p>Recreational - Aeroplane</p> <p>Student Pilot Permit</p> <p>Ultra-light Aeroplanes</p> <p>Pilot Permit</p> <p>Ultra-Light Aeroplanes</p> <p>Student Pilot Permit</p> <p>Glider</p> <p>Pilot Licence</p> <p>Glider</p>
<p>NOTE: The holder of Medical Category 1 shall be considered fit for any licence for its respective duration of validity unless otherwise specified.</p>	<p>NOTE: The requirements of the Air Traffic Controller licence must be interpreted in respect to the applicant's working environment and the flight safety responsibilities involved. (amended 2007/12/30)</p>		
<p>The medical examination and assessment shall be based upon the following requirements of physical and mental fitness.</p>	<p>The medical examination and assessment shall be based on the following requirements of physical and mental fitness.</p>	<p>The medical examination and assessment shall be based on the following requirements of physical and mental fitness.</p>	<p>The medical examination and assessment shall be based on the following requirements of physical and mental fitness.</p>
			<p>An applicant who meets the conditions specified in Part B of Form 26-0297 shall be deemed to have met the Category 4 Medical Standards. An applicant for a Pilot Permit - Recreational requires that Part C of</p>

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
			Form 2 -0297 be completed by a physician
<p>1.1 The applicant shall be free from</p> <p>(a) any abnormality, congenital or acquired; or</p> <p>(b) any active, latent, acute or chronic disability; or</p> <p>(c) any wound, injury or sequelae from operation</p> <p>(d) any effect or side effect of any prescribed or non-prescribed therapeutic medication taken.</p> <p>(amended 1999/03/01)</p> <p>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with the safe operation of an aircraft at any altitude throughout a prolonged or difficult flight, or may reasonably be expected within the period of validity of the licence to make the applicant unfit to exercise the privileges of the licence applied for or held.</p>	<p>2.1 The applicant shall be free from</p> <p>(a) any abnormality, congenital or acquired; or</p> <p>(b) any active, latent, acute or chronic disability; or</p> <p>(c) any wound, injury or sequelae from operation</p> <p>(d) any effect or side effect of any prescribed or non-prescribed therapeutic medication taken.</p> <p>(amended 1999/03/01)</p> <p>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with reliable performance of duties within the period of validity of the licence.</p>	<p>3.1 The applicant shall be free from</p> <p>(a) any abnormality, congenital or acquired; or</p> <p>(b) any active, latent, acute or chronic disability; or</p> <p>(c) any wound, injury or sequelae from operation</p> <p>(d) any effect or side effect of any prescribed or non-prescribed therapeutic medication taken.</p> <p>(amended 1999/03/01)</p> <p>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with the safe operation of an aircraft during the period of validity of the licence.</p>	<p>4.1 An applicant shall have no disease past or present or any disability or any effect or side effect of any prescribed or non-prescribed therapeutic medication taken which is likely to interfere with the safe operation of an aircraft during the period of validity of the licence.</p> <p>(amended 1999/03/01)</p>
<p>1.2 The applicant shall not suffer from any disease or disability which may render the applicant liable to become unable to operate an aircraft safely.</p>	<p>2.2 The applicant shall not suffer from any disease or disability which may render the applicant liable to a sudden or insidious degradation of performance within the period of validity of the licence.</p>	<p>3.2 The applicant shall not suffer from any disease or disability which may render the applicant liable to become unable to handle an aircraft safely.</p>	<p>4.2 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
Nervous System			
<p>1.3 The applicant shall have no established medical history or clinical diagnosis which, according to accredited medical conclusion, would render the applicant unable to exercise safely the privileges of the permit, licence or rating applied for or held, as follows:</p> <p>(a) psychosis or established neurosis;</p> <p>(b) alcohol or chemical dependence or abuse;</p> <p>(c) a personality or behaviour disorder that has resulted in the commission of an overt act;</p> <p>(d) other significant mental abnormality</p>	<p>2.3 The applicant shall have no established medical history or clinical diagnosis which, according to accredited medical conclusion, would render the applicant unable to exercise safely the privileges of the licence or rating applied for or held, as follows:</p> <p>(a) psychosis or established neurosis;</p> <p>(b) alcohol or chemical dependence or abuse;</p> <p>(c) a personality or behaviour disorder that has resulted in the commission of an overt act;</p> <p>(d) other significant mental abnormality.</p>	<p>3.3 The applicant shall have no established medical history or clinical diagnosis which, according to accredited medical conclusion, would render the applicant unable to exercise safely the privileges of the permit or licence applied for or held, as follows:</p> <p>(a) psychosis or established neurosis;</p> <p>(b) alcohol or chemical dependence or abuse;</p> <p>(c) a personality or behaviour disorder that has resulted in the commission of an overt act;</p> <p>(d) other significant mental abnormality.</p> <p>NOTE: An applicant providing documented proof of recovery from alcohol or chemical dependence or abuse may be considered fit.</p>	<p>4.3 An applicant shall have no medical history or clinical diagnosis likely to interfere with the safe operation of an aircraft as follows:</p> <p>(a) a convulsive disorder, fits, recurrent fainting, severe head injury, post traumatic syndrome, severe headaches or migraines;</p> <p>(b) psychiatric illness;</p> <p>(c) alcohol or chemical dependence or abuse;</p> <p>(d) a personality or behaviour disorder that has resulted in the commission of an overt act;</p>
<p>1.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:</p> <p>(a) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe operation of an aircraft;</p> <p>(b) a convulsive disorder;</p>	<p>2.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:</p> <p>(a) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, is likely to interfere with the reliable performance of duties;</p> <p>(b) a convulsive disorder;</p>	<p>3.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:</p> <p>(a) a progressive or non-progressive disease of the nervous system, the effects of which, according to accredited medical conclusion, are likely to interfere with the safe operation of an aircraft during the period of validity of the licence;</p>	<p>4.4 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>(c) any disturbance of consciousness without satisfactory medical explanation of cause;</p> <p>(d) any history of serious head injury the effects of which, according to the accredited medical conclusion, are likely to interfere with the safe operation of an aircraft</p> <p>2.4</p>	<p>(c) any disturbance of consciousness without satisfactory medical explanation of cause;</p> <p>(d) any history of head injury the effects of which, according to accredited medical conclusion, are likely to interfere with reliable performance of duties.</p>	<p>(b) a convulsive disorder;</p> <p>(c) any disturbance of consciousness, without satisfactory medical explanation, which is likely to interfere with the safe operation of an aircraft.</p> <p>(d) any history of serious head injury the effects of which, according to accredited medical conclusion, are likely to interfere with the safe operation of an aircraft.</p>	
Cardio-Vascular System			
<p>1.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe operation of an aircraft.</p>	<p>2.5 The applicant shall not possess any abnormality of the heart, congenital or acquired which is likely to be the cause of incapacitation during the period of validity of the licence.</p>	<p>3.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe operation of an aircraft.</p>	<p>4.5 The applicant shall have no current cardiovascular conditions likely to interfere with the safe operation of an aircraft.</p> <p>NOTE: An applicant indicated by accredited medical conclusion to have made a satisfactory recovery from myocardial infarction, coronary artery bypass or whose hypertension is controlled by acceptable medications shall be considered fit.</p>
<p>1.6 An established medical history or clinical diagnosis of</p> <p>(a) myocardial infarction; or</p> <p>(b) myocardial ischemia, overt or silent, or other evidence of coronary artery disease, considered by accredited medical conclusion to potentially predispose to an incapacitating event, shall</p>	<p>2.6 An established medical history or clinical diagnosis of</p> <p>(a) myocardial infarction; or</p> <p>(b) myocardial ischemia, overt or silent, or other evidence of coronary artery disease, considered by accredited medical conclusion to potentially predispose to an incapacitating event, shall</p>	<p>3.6 An established medical history or clinical diagnosis of</p> <p>(a) myocardial infarction; or</p> <p>(b) myocardial ischemia, overt or silent, or other evidence of coronary artery disease considered by accredited medical conclusion to potentially predispose to an incapacitating event shall</p>	<p>4.6 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT
(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
be assessed unfit.	be assessed unfit.	be assessed unfit.	
<p>1.7 Routine electrocardiography shall form part of the heart examination of an applicant</p> <p>(a) for the first issue of a Medical Certificate;</p> <p>(b) within the two years preceding the examination between ages 30 years and 40 years; and</p> <p>(c) within the 12 months preceding the examination after age 40.</p>	<p>2.7 Routine electrocardiography shall form part of the heart examination of an applicant</p> <p>(a) for the first issue of a Medical Certificate;</p> <p>(b) within the two years preceding the examination between ages 30 years and 40 years; and</p> <p>(c) within the 12 months preceding the examination after age 40.</p>	<p>3.7 Routine electrocardiography shall form part of the heart examination of an applicant</p> <p>(a) at the first examination after the applicant has attained the age of forty years; and</p> <p>(b) subsequently within the four years preceding the examination. (amended 2005/06/01)</p> <p>NOTE: To avoid possible inconvenience at a later date all applicants under the age of 40 are encouraged to submit a routine ECG upon initial application.</p>	<p>4.7 Routine electrocardiography shall form part of the heart examination of an applicant for a Pilot Permit - Recreational</p> <p>(a) at the first examination after the applicant has attained the age of forty years;</p> <p>(b) at the first examination after the applicant has attained the age of fifty years; and</p> <p>(c) subsequently within the four years preceding the examination. (amended 2005/06/01)</p> <p>NOTE: The ECG tracing is not required to be submitted with the medical declaration form</p>
<p>1.8 The systolic and diastolic blood pressure shall be within normal limits.</p> <p>NOTE: The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which according to accredited medical conclusion, can be adequately tolerated by the applicant, are compatible with the safe performance of duties and can be closely monitored by the aviation medical examiner or a physician in communication with the Civil Aviation Medicine Division Medical Staff.</p> <p>(2) When initiating a new treatment for</p>	<p>2.8 The systolic and diastolic blood pressure shall be within normal limits.</p> <p>NOTE: The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which, according to accredited medical conclusion, can be adequately tolerated by the applicant and are comparable with the safe performance of duties.</p> <p>(2) When initiating a new treatment for hypertension, the applicant shall not exercise the privileges of the licence until the new medication is well tolerated.</p>	<p>3.8 The systolic and diastolic blood pressure shall be within normal limits.</p> <p>NOTE: The use of drugs for control of high blood pressure is disqualifying except for those drugs, the use of which according to accredited medical conclusion, can be adequately tolerated by the applicant, are compatible with the safe performance of duties and can be closely monitored by the aviation medical examiner or a physician in communication with the Civil Aviation Medicine Division Medical Staff.</p>	<p>4.8 Medications used for the control of high blood pressure shall be approved by the Civil Aviation Medicine Division Medical Staff where the medication will not interfere with the safe operation of an aircraft.</p>

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
hypertension, the applicant shall not exercise the privileges of the licence until the new medication is well tolerated.			
1.9 There shall be no functional or structural abnormality of the peripheral vascular system which accredited medical conclusion indicates could affect safe performance of duties.	2.9 There shall be no functional or structural abnormality of the peripheral vascular system which accredited medical conclusion indicates could affect safe performance of duties.	3.9 There shall be no functional or structural abnormality of the peripheral vascular system which accredited medical conclusion indicates could affect safe performance of duties.	4.9 Not allocated.
Respiratory System			
1.10 There shall be no significant disability or progressive disease of the lungs, pleura or mediastinum.	2.10 There shall be no significant disability or progressive disease of the lungs, pleura or mediastinum. Radiography shall form a part of the initial medical examination in all doubtful clinical cases.	3.10 There shall be no significant disability or progressive disease of the lungs, pleura or mediastinum.	4.10 An applicant shall not suffer from any acute or chronic respiratory condition which might interfere with the safe operation of an aircraft.
1.11 Any extensive mutilation of the chest wall with collapse of the thoracic cage and sequelae of surgical procedures resulting in decreased respiratory efficiency at altitude shall be assessed as unfit for flight duties.	2.11 Any extensive mutilation of the chest wall with collapse of the thoracic cage and sequelae of surgical procedures resulting in decreased respiratory efficiency at altitude shall be assessed as unfit for flight duties. Air Traffic Controllers shall have a respiratory efficiency within the normal range for the conditions described above.	3.11 Not allocated.	4.11 Not allocated.
1.12 Cases of chronic obstructive pulmonary disease shall be assessed as unfit only if the condition is causing obvious symptoms on moderate exercise and could lead to impairment	2.12 Cases of chronic obstructive pulmonary disease shall be assessed as unfit if the condition is causing symptoms.	3.12 Not allocated.	4.12 Not allocated

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
at altitude.			
1.13 Cases of active pulmonary tuberculosis shall be assessed as unfit. Cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, shall be assessed as fit if not liable to cause incapacitation in the air.	2.13 Cases of active pulmonary tuberculosis, duly diagnosed, shall be assessed as unfit. Cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, shall be assessed as fit if the condition is not liable to affect the reliable performance of duties.	3.13 Cases of active pulmonary tuberculosis, duly diagnosed, shall be assessed as unfit. Cases of quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, shall be assessed as fit if not liable to cause incapacitation in the air.	4.13 Not allocated
Gastro-intestinal System			
1.14 There shall be no disease of the gastrointestinal tract which accredited medical conclusion indicates could affect safe performance of duties.	2.14 There shall be no disease of the gastrointestinal tract which accredited medical conclusion indicates could affect safe performance of duties.	3.14 There shall be no disease of the gastrointestinal tract which accredited medical conclusion indicates could affect safe performance of duties.	4.14 Not allocated
1.15 The applicant shall be free from any hernia that might give rise to incapacitating symptoms in flight.	2.15 The applicant shall be free from any hernia that is likely to give rise to incapacitating symptoms while exercising the privileges of the licence.	3.15 The applicant shall be free from inguinal, hiatal or other hernia that might give rise to sudden incapacitation in flight.	4.15 Not allocated
1.16 Any sequelae of disease, medication or surgical intervention on any part of the digestive tract and its adnexa, likely to cause incapacitation in flight, in particular any obstructions due to stricture or compression, shall be assessed as unfit. NOTE: An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexae, involving a total or partial excision or a diversion of any of these	2.16 Any sequelae of disease, medication or surgical intervention on any part of the digestive tract and its adnexa, liable to give rise to incapacitating or distracting symptoms, in particular any obstructions due to stricture or compression, shall be assessed as unfit.	3.16 Any sequelae of disease, medication or surgical intervention on any part of the digestive tract and its adnexa, and in particular any stricture or compression that might cause sudden incapacitation in flight, shall be assessed as unfit.	4.16 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
organs shall be assessed as unfit until such time as accredited medical conclusion considers that the effects of the operation are not liable to cause incapacitation in the air.			
Other Medical Conditions			
1.17 Cases of metabolic, nutritional or endocrine disorders likely to interfere with the safe operation of an aircraft shall be assessed as unfit.	2.17 Cases of metabolic, nutritional or endocrine disorders likely to interfere with reliable performance of duties shall be assessed as unfit.	3.17 Cases of metabolic, nutritional and endocrine disorders likely to interfere with the safe operation of an aircraft shall be assessed as unfit.	4.17 An applicant shall not suffer from any unstable metabolic disorder likely to interfere with the safe operation of an aircraft.
1.18 Proven cases of diabetes mellitus may be considered fit provided the certain specific control criteria are met. NOTE: These criteria are outlined in the Health Canada Document " <i>Canadian Guidelines for the Assessment of Medical Fitness in Pilots, Flight Engineers and Air Traffic Controllers with diabetes mellitus 1995.</i> "	2.18 Proven cases of diabetes mellitus may be considered fit provided the certain specific control criteria are met. NOTE: These criteria are outlined in the Health Canada Document " <i>Canadian Guidelines for the Assessment of Medical Fitness in Pilots, Flight Engineers and Air Traffic Controllers with diabetes mellitus 1995.</i> "	3.18 Proven cases of diabetes mellitus may be considered fit provided the certain specific control criteria are met. NOTE: These criteria are outlined in the Health Can Document " <i>Canadian Guidelines for the Assessment of Medical Fitness in Pilots, Flight Engineers and Air Traffic Controllers with diabetes mellitus 1995.</i> "	4.18 Not allocated.
1.19 Not allocated	2.19 Not allocated	3.19 Not allocated	4.19 Not allocated
1.20 Not allocated	2.20 Not allocated	3.20 Not allocated	4.20 Not allocated
Genito-urinary System			
1.21 Cases presenting signs of established or progressive organic disease of the kidney or genito-urinary tract shall be assessed as unfit. The urine shall be free of any element considered by the Civil Aviation Medical Examiner to be pathological. Urinary conditions of a transient nature shall be considered	2.21 Not allocated.	3.21 Cases of organic disease of the genito-urinary tract likely to affect the safe operation of an aircraft shall be considered unfit. The urine shall be contain no abnormal element indicative of such disease or indicative of any other unassessed general condition.	4.21 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
unfit while the condition exists.			
<p>1.22 Any sequelae of disease, medication or surgical procedures on the kidneys and the urinary tract liable to cause incapacitation, in particular any obstructions due to stricture or calculus obstruction, shall be assessed as unfit unless accredited medical conclusion considers that the condition is not liable to cause incapacitation in the air. Compensated nephrectomy without hypertension or uremia shall be assessed as fit.</p> <p>NOTE: An applicant who has undergone a major surgical operation on the urinary system, which has involved a total or partial excision or a diversion of any of its organs shall be assessed as unfit until such time as accredited medical conclusion considers that the effects of the operation are not liable to cause incapacitation in the air.</p>	<p>2.22 Any sequelae of disease, medication or surgical procedures on the kidneys and the urinary tract liable to cause incapacitation, in particular any obstructions due to stricture or calculus obstruction, shall be assessed as unfit unless accredited medical conclusion considers that the condition is not liable to affect the reliable performance of duties. Compensated nephrectomy without hypertension or uremia shall be assessed as fit.</p> <p>NOTE: An applicant who has undergone a major surgical operation on the urinary system, which has involved a total or partial excision or a diversion of any of its organs shall be assessed as unfit until such time as accredited medical conclusion considers that the effects of the operation are not liable to affect the reliable performance of duties.</p>	<p>3.22 Any sequelae of disease, medication or surgical procedures on the kidneys and the urinary tract liable to cause incapacitation, in particular any obstructions due to stricture or calculus obstruction, shall be assessed as unfit unless accredited medical conclusion considers that the condition is not liable to cause incapacitation in the air. Compensated nephrectomy without hypertension or uremia shall be assessed as fit.</p> <p>NOTE: An applicant who has undergone a major surgical operation on the urinary system, which has involved a total or partial excision or a diversion of any of its organs shall be assessed as unfit until such time as accredited medical conclusion considers that the effects of the operation are not liable to cause incapacitation in the air.</p>	4.22 Not allocated.
<p>1.23 An applicant for the first issue of a licence who has a personal history of syphilis shall be required to furnish evidence satisfactory to the Civil Aviation Medical Examiner, that he has undergone adequate treatment and is free from communicable disease. Seropositive HIV</p>	<p>2.23 An applicant for the first issue of a licence who has a personal history of syphilis shall be required to furnish evidence, satisfactory to the Civil Aviation Medical Examiner, that he has undergone adequate treatment. Seropositive HIV applicants shall be</p>	<p>3.23 Seropositive HIV applicants shall be assessed unfit, unless certain specific criteria, as determined by accredited medical conclusion, can be met.</p>	4.23 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
applicants shall be assessed unfit, unless certain specific criteria, as determined by accredited medical conclusion, can be met.	assessed unfit, unless certain specific criteria, as determined by accredited medical conclusion, can be met.		
1.24 Reproductive System (amended 1998/03/23) (1) Pregnancy and Childbirth (a) In the case of a normal pregnancy, the applicant may be considered fit until the thirtieth (30th) week of pregnancy. (b) In the case of a high-risk pregnancy that is liable to cause incapacitation in the air, the applicant shall be considered unfit. (c) After childbirth, the applicant may be considered fit before six (6) weeks post partum if she provides a report to the RAMO or AMO from her attending physician attesting to her capacity to resume duties. (2) Gynaecological Disorders (amended 1998/03/23) In the case of an applicant who has a history of a gynaecological disorder that: (a) has not responded to treatment and is liable to cause incapacitation in the air; or (b) requires medication incompatible with the safe operation of an aircraft	2.24 Reproductive System (amended 1998/03/23) (1) Pregnancy and Childbirth (a) In the case of a normal pregnancy, the applicant may be considered fit until her expected date of confinement. (b) After childbirth, the applicant may be considered fit before six (6) weeks post partum if she provides a report to the RAMO or AMO from her attending physician attesting to her capacity to resume duties. (2) Gynaecological Disorders (amended 1998/03/23) In the case of an applicant who has a history of a gynaecological disorder that is likely to interfere with the reliable performance of duties shall be considered unfit.	3.24 Reproductive System (amended 1998/03/23) (1) Pregnancy and Childbirth (a) In the case of a normal pregnancy, the applicant may be considered fit until the thirtieth (30th) week of pregnancy. (b) In the case of a high-risk pregnancy that is liable to cause incapacitation in the air, the applicant shall be considered unfit. (c) After childbirth, the applicant may be considered fit before six (6) weeks post partum if she provides a report to the RAMO or AMO from her attending physician attesting to her capacity to perform. (2) Gynaecological Disorders (amended 1998/03/23) In the case of an applicant who has a history of a gynaecological disorder that: (a) has not responded to treatment and is liable to cause incapacitation in the air or; (b) requires medication incompatible with the safe operation of an aircraft	4.24 Reproductive System (amended 1998/09/01) (1) Pregnancy and Childbirth (a) In the case of a normal pregnancy, the applicant may be considered fit until the thirtieth (30th) week of pregnancy. (b) In the case of a high risk pregnancy that is liable to cause incapacitation in the air, the applicant shall be considered unfit. (c) After childbirth, the applicant may be considered fit before six weeks post partum if she provides a report to the RAMO or AMO from her attending physician attesting to her capacity to perform. (2) Gynaecological Disorders: (amended 1998/09/01) In the case of an applicant who has a history of gynaecological disorder that: (a) has not responded to treatment and is liable to cause incapacitation in the air, or (b) requires medication incompatible with the safe operation of an aircraft

PHYSICAL AND MENTAL REQUIREMENT
(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
shall be considered unfit.		shall be considered unfit.	shall be considered unfit

Musculoskeletal System

<p>1.25 Any active disease of the bones, joints, muscles or tendons and all serious functional sequelae of congenital or acquired disease shall be assessed as unfit. Functional after-effects of lesions affecting bones, joints, muscles or tendons and certain anatomical defects if they are compatible with the safe performance of duties at any altitude and throughout a prolonged or difficult flight shall be assessed as fit.</p>	<p>2.25 Any active disease of the bones, joints, muscles or tendons, congenital abnormality or significant functional sequelae of congenital or acquired disease, likely to be a handicap in the working environment, shall be assessed as unfit. Functional after-effects of lesions affecting bones, joints, muscles or tendons, and certain anatomical defects if they are compatible with the safe performance of duties shall be assessed as fit.</p>	<p>3.25 Any active disease of the bones, joints, muscles or tendons and all serious functional sequelae of congenital or acquired disease shall be assessed as unfit. Functional after-effects of lesions affecting the bones, joints, muscles or tendons and certain anatomical defects compatible with the safe performance of duties shall be assessed as fit.</p>	<p>4.25 Not allocated.</p>
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Ear, Nose and Throat Conditions

<p>1.26 There shall be</p> <p>(a) no active pathological process, acute or chronic, of the inner ear or of the middle ear;</p> <p>(b) no unhealed (unclosed) perforation of the tympanic membranes. However, a single dry perforation of non-infectious origin need not render the applicant unfit. Medical Certificates shall not be issued or revalidated in these circumstances unless the appropriate hearing requirements specified in section 1.29 and following are complied with;</p> <p>(c) no permanent obstruction of the</p>	<p>2.26 There shall be</p> <p>(a) no active pathological process, acute or chronic, of the inner ear or of the middle ear;</p> <p>(b) no unhealed (unclosed) perforation of the tympanic membranes. However, a single dry perforation of non-infectious origin need not render the applicant unfit. Medical Certificates shall not be issued or revalidated in these circumstances unless the appropriate hearing requirements specified in section 1.29 and following are complied with;</p> <p>(c) no permanent obstruction of the</p>	<p>3.26 There shall be</p> <p>(a) no active pathological process, acute or chronic, of the inner ear or of the middle ear;</p> <p>(b) no unhealed (unclosed) perforation of the tympanic membranes. However, a single dry perforation of non-infectious origin need not render the applicant unfit. Medical Certificates shall not be issued or revalidated in these circumstances unless the appropriate hearing requirements specified in section 1.29 and following are complied with;</p> <p>(c) no permanent obstruction of the</p>	<p>4.26 An applicant shall not suffer from any condition of the ears, nose or throat which is likely to interfere with the safe operation of an aircraft.</p>
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PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>Eustachian tubes;</p> <p>(d) no permanent disturbances of the vestibular system.</p> <p>Transient conditions shall be assessed as temporarily unfit while the condition exists.</p>	<p>Eustachian tubes;</p> <p>(d) no permanent disturbances of the vestibular system.</p> <p>Transient conditions shall be assessed as temporarily unfit while the condition exists.</p> <p>NOTE: In the revalidation of Air Traffic Controller Licences the Civil Aviation Medical Examiner shall assess any pathology of the ear and inner ear in respect to the control duties involved. The licence shall not be revalidated, however, unless the applicant can meet the hearing requirements.</p> <p>(2) In the case of Flight Engineer there shall be no significant or chronic obstruction of the nasal or sinus cavities that is likely to affect the reliable performance of duties.</p>	<p>Eustachian tubes;</p> <p>(d) no permanent disturbances of the vestibular system.</p> <p>Transient conditions shall be assessed as temporarily unfit while the condition exists.</p>	
<p>1.27 There shall be free nasal air entry on both sides and the nasal and sinus cavities shall be free from significant obstructions. There shall be no serious malformation nor serious acute or chronic infection of the buccal cavity or upper respiratory tract that might affect the safe performance of duties.</p>	<p>2.27 There shall be free nasal air entry on both sides and the nasal and sinus cavities shall be free from significant obstructions. There shall be no serious malformation, nor acute or chronic infection of the buccal cavity or upper respiratory tract that affects speech or is likely to interfere with reliable performance of duties.</p>	<p>3.27 There shall be free nasal air entry on both sides, and the nasal and sinus cavities should be free from significant obstructions. There shall be no serious malformation nor serious acute or chronic infection of the buccal cavity or upper respiratory tract that might affect safe performance.</p>	<p>4.27 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
1.28 Speech defects and stuttering that cause communication difficulties shall be considered unfit.	2.28 Not allocated.	3.28 Speech defects and stuttering that are liable to give rise to radio communication difficulties shall be considered unfit.	4.28 Not allocated.
Hearing Requirement			
1.29 The applicant shall be required to be free from any hearing defect which could interfere with the safe performance of the applicants duties in exercising the privileges of the licence.	2.29 The applicant shall be required to be free from any hearing defect which could interfere with the safe performance of the applicants duties in exercising the privileges of the licence	3.29 The applicant shall be free from any hearing defect which could interfere with the safe performance of the applicants duties in exercising the privileges of the licence.	4.29 Not allocated.
1.30 The applicant shall be tested on a pure tone audiometer at the initial examination for a Medical Category I and at the first medical examination after age 55, unless tested satisfactory during the five years preceding these dates, and shall not show a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000, 2000 Hz or more than 50 dB at 3000 Hz.	2.30 The applicant shall be tested on a pure tone audiometer at the initial examination for a Medical Category 2 and at the first medical examination after age 55, unless tested satisfactory during the five years preceding these dates, and shall not show a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000, 2000 Hz or more than 50 dB at 3000 Hz.	3.30 Not allocated.	4.30 Not allocated.
1.31 At each examination the applicant shall demonstrate, in a quiet room, the ability to hear a soft-whispered voice in each ear separately at a distance of two metres (six feet) from the Aviation Medical Examiner. Applicants experiencing some difficulty with routine whisper shall be tested by pure tone audiometry.	2.31 At each examination the applicant shall demonstrate, in a quiet room the ability to hear a soft-whispered voice in each ear at a distance of two metres (six feet) from the Aviation Medical Examiner. Applicants experiencing some difficulty with routine whisper shall be tested by pure tone audiometry.	3.31 At each examination the applicant shall demonstrate, in a quiet room, the ability to hear a soft-whispered voice in each ear at a distance of two metres (six feet) from the Aviation Medical Examiner and an average conversational voice with both ears at three metres (nine feet) with the back turned to the Aviation Medical Examiner. Applicants experiencing difficulty with routine whisper or	4.31 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
		conversational voice tests shall be tested by pure tone audiometry.	
<p>1.32 Provided that there is no greater loss than 50 dB at 3000 Hz, applicants who show an average loss on pure tone audiometry of no greater than 45 dB in the better ear shall be considered fit if they can demonstrate satisfactory hearing in the cockpit noise environment in which they normally operate. Average losses greater than 45 dB in the better ear shall be evaluated by an otolaryngologist and be subject to individual assessment according to accredited medical conclusion.</p> <p>NOTE: The reference zero for calibration of pure tone audiometers used is that of the International Organization of Standardization Recommendation R389, 1964 or that of the American National Standards Institute.</p> <p>(2) The use of individual hearing aids during voice or practical testing is not permitted unless flexibility has previously been granted in accordance with Part IV, Subpart 4 of the CARs.</p>	<p>2.32 Provided that there is no greater loss than 50 dB at 3000 Hz, applicants who show an average loss on pure tone audiometry of no greater than 45 dB in the better ear shall be considered fit if they can demonstrate satisfactory hearing in the cockpit or appropriate ATC noise environment in which they normally operate. Average losses greater than 45 dB in the better ear shall be evaluated by an otolaryngologist and be subject to individual assessment according to accredited medical conclusion.</p> <p>NOTE: The reference zero for calibration of pure tone audiometer used is that of the International Organization of Standardization Recommendation R389, 1964 or that of the American National Standards Institute.</p> <p>(2) The sound level of an average conversational voice used for voice testing is considered to range from 85 to 95 dB at point of output.</p> <p>(3) The use of individual hearing aids during voice or practical testing is not permitted unless flexibility has previously been granted in accordance with Subpart 404 of</p>	<p>3.32 Provided that there is no greater loss than 50 dB at 3000 Hz applicants who show an average loss on pure tone audiometry of no greater than 45 dB in the better ear shall be considered fit if they can demonstrate satisfactory hearing in the cockpit noise environment in which they normally operate. Average losses greater than 45 dB in the better ear shall be evaluated by an otolaryngologist and be subject to individual assessment according to accredited medical conclusion.</p> <p>NOTE: Pure tone audiometry is the method of choice for assessment of hearing and shall be repeated every five years. The applicant, on testing by pure tone audiometry, shall not have a hearing loss in either ear separately of more than 35 dB at any of the frequencies 500, 1000 or 2000, or more than 50 dB at 3000 Hz.</p> <p>(2) The reference zero of pure tone audiometers used is that of the International Organization for Standardization Recommendation R389, 1964 or that of the American National Standards Institute.</p> <p>(3) A sound level of an average conversational</p>	<p>4.32 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
	the CARs.	voice used for voice testing is considered to range from 85 to 95 dB at point of output. (4) Where a hearing aid is required to meet the requirements of paras. 3.31 or 3.32 the validation certificate shall be endorsed "Valid only when wearing a satisfactory hearing aid".	
Visual Requirement			
1.33 The function of the eyes and their adnexa shall be normal. There shall be no active pathological or artificially induced condition, acute or chronic, of either eye or adnexae which is likely to interfere with its proper function to an extent that would jeopardize safety in flight or the safe performance of duties.	2.33 There shall be no active pathological or artificially induced condition, acute or chronic, of either eye or adnexa which is likely to interfere with its proper function to an extent that would jeopardize safety in flight or the safe performance of duties.	3.33 The function of the eyes and their adnexa shall be normal. There shall be no active pathological or artificially induced condition, acute or chronic, of either eye or adnexae which is likely to interfere with its proper function to an extent that would jeopardize safety in flight, or safe performance of duties.	4.33 An applicant shall have a distant visual acuity of no less than 20/30 (6/9) corrected or uncorrected in the better eye.
1.34 The applicant shall be required to have normal fields of vision.	2.34 The applicant shall be required to have normal fields of vision.	3.34 The applicant shall be required to have normal fields of vision.	4.34 The applicant shall be required to have normal fields of vision.
1.35 The applicant shall be required to have a distant visual acuity of not less than 6/9 (20/30) in each eye separately, with or without the use of correcting lenses. Where this standard of visual acuity can be obtained only with correcting lenses the applicant shall be assessed fit provided that (a) such correcting lenses are worn when exercising the privileges of the licence or rating applied for or held;	2.35 The applicant shall be required to have a distant visual acuity of not less than 6/9 (20/30) in each eye separately, with or without the use of correcting lenses. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant shall be assessed fit provided that (a) such correcting lenses are worn when exercising the privileges of the licence or rating applied for or held;	3.35 The applicant shall be required to have a distant visual acuity of not less than 6/9 (20/30) in each eye separately, with or without the use of correcting lenses. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant shall be assessed fit provided that (a) such correcting lenses are worn when exercising the privileges of the licence or rating applied for or held;	4.35 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>(b) the applicant possesses a visual acuity without correction in each eye separately, not less than 6/60 (20/200) and the refractive error falls within the range of ± 3.0 diopters (equivalent spherical error); (amended 2003/06/01)</p> <p>(c) the applicant has a spare pair of suitable correcting glasses available for immediate use when exercising the privileges of the licence.</p> <p>NOTE: Correcting lenses" shall be interpreted to mean spectacles or contact lenses. Contact lenses shall not be approved prior to six months trial wear.</p> <p>(2) Visual acuity shall be measured using Landolt Rings, a chart of Snellen letters, or other similar optotypes situated at an optical distance of 6 metres (20 feet) in either an eye lane or an approved vision testing instrument. Where an eye lane is used, the test chart shall be illuminated to a level equivalent to that provided by a 100 watt lightbulb placed 120 centimetres (4 feet) in front of, and slightly above the chart and the light shielded against the applicant. The examination room shall be darkened with exception of the illuminated chart.</p> <p>(3) An applicant accepted</p>	<p>(b) the applicant possesses a visual acuity without correction in each eye separately, not less than 6/60 (20/200) and the refractive error falls within the range of ± 5.0 diopters (equivalent spherical error);</p> <p>(c) the applicant has a spare pair of suitable correcting glasses available for immediate use when exercising the privileges of the licence.</p> <p>Individual applicants whose refractive error in either eye falls outside the range of ± 5 diopters (equivalent spherical error) shall be assessed as fit if this assessment is valid according to accredited medical conclusion.</p> <p>NOTE: Correcting lenses" shall be interpreted to mean spectacles or contact lenses. Contact lenses shall not be approved prior to six months trial wear.</p> <p>(2) Visual acuity shall be measured using Landolt Rings, a chart of Snellen letters, or other similar optotypes situated at an optical distance of 6 metres (20 feet) in either an eye lane or an approved vision testing instrument. Where an eye lane is used, the test chart shall be illuminated to a level equivalent to that provided by a 100 watt</p>	<p>(b) the applicant possesses a visual acuity without correction in each eye separately, not less than 6/60 (20/200) and the refractive error falls within the range of ± 5 diopters (equivalent spherical error);</p> <p>(c) the applicant has a spare pair of suitable correcting glasses available for immediate use when exercising the privileges of the licence.</p> <p>Individual applicants whose refractive error in either eye falls outside the range of ± 5 diopters (equivalent spherical error) shall be accepted as fit according to accredited medical conclusion.</p> <p>NOTE: Correcting lenses" shall be interpreted to mean spectacles or contact lenses. Contact lenses shall not be approved prior to six months trial wear.</p> <p>(2) Visual acuity shall be measured using Landolt Rings, a chart of Snellen letters, or other similar optotypes situated at an optical distance of 6 metres (20 feet) in either an eye lane or an approved vision testing instrument. Where an eye lane is used, the test chart shall be illuminated to a level equivalent to that provided by a 100 watt lightbulb placed 120 centimetres (4 feet) in</p>	

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>as meeting the provisions of para. 1.35 (b) is deemed to continue to do so unless there is reason to suspect otherwise, in which case refraction is repeated as required. The uncorrected visual acuity is measured and recorded at each re-examination. Conditions which indicate a need to redetermine the refractive error include, but are not limited by: a refractive state close to the limit of acceptability, a substantial decrease in the uncorrected visual acuity and the occurrence of eye disease, eye injury or eye surgery.</p>	<p>lightbulb placed 120 centimetres (4 feet) in front of, and slightly above the chart and the light shielded against the applicant. The examination room shall be darkened with exception of the illuminated chart.</p> <p>(3) An applicant accepted as meeting the provisions of para. 2.35 (b) is deemed to continue to do so unless there is reason to suspect otherwise, in which case refraction is repeated as required. The uncorrected visual acuity is measured and recorded at each examination. Conditions which indicate a need to redetermine the refractive error include, but are not limited by: a refractive state close to the limit of acceptability, a substantial decrease in the uncorrected visual acuity and the occurrence of eye disease, eye injury or eye surgery.</p>	<p>front of, and slightly above the cart and the light shielded against the applicant. The examination room shall be darkened with exception of the illuminated chart.</p> <p>(3) An applicant accepted as meeting the provisions of para. 3.35 (b) is deemed to continue to do so unless there is reason to suspect otherwise, in which case refraction is repeated as required. The uncorrected visual acuity is measured and recorded at each examination. Conditions which indicate a need to redetermine the refractive error include, but are not limited by: a refractive state close to the limit of acceptability, a substantial decrease in the uncorrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery.</p>	
<p>1.36 The applicant shall be required to have the ability to read the N5 Chart or its equivalent at a distance of 30 to 50 centimetres (12 to 20 inches). If the requirement is met only by the use of correcting lenses, the applicant shall be assessed as fit provided that such lenses are available for immediate use when exercising the privileges of the licence.</p>	<p>2.36 The applicant shall be required to have the ability to read the N5 Chart or its equivalent at a distance of 30 to 50 centimetres (12 to 20 inches). If this requirement is met only by the use of correctional lenses, the applicant shall be assessed as fit provided that such lenses are available for immediate use when exercising the privileges of the licence.</p>	<p>3.36 The applicant shall be required to have the ability to read the N5 Chart or its equivalent at a distance of 30 to 50 centimetres (12 to 20 inches). If this requirement is met only by the use of correcting lenses, the applicant shall be assessed as fit provided that such lenses are available for immediate use when exercising the privileges of the licence.</p>	<p>4.36 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT

(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>NOTE: N5 refers to the Faculty of Ophthalmologist's Reading Type.</p> <p>(2) An applicant who needs correction to meet this requirement will require "look-over", bifocal or trifocal lenses to enable him to read the instruments and a chart or manual held in the hand, and also make use of distant vision through the windscreen without removing his lenses. Single-vision near correction (full lenses of one power only, appropriate to reading) significantly reduces distant visual acuity. Whenever there is a requirement to obtain or renew correcting lenses, an applicant shall advise the refractionist of reading distances for the visual flight deck tasks relevant to the type of aircraft in which he is likely to function or to other aviation tasks.</p>	<p>NOTE: N5 refers to the Faculty of Ophthalmologist's Reading Type.</p> <p>(2) An applicant who needs intermediate/near vision correction will require "look-over", bifocals or trifocals lenses to enable him to read instruments, charts, manuals, etc., and still make use of distant vision without removing his lenses. Single vision near correction (full lenses of one power only, appropriate to reading) significantly reduce distant visual acuity. Whenever there is a requirement to obtain or renew correcting lenses, an applicant shall advise the refractionist of the reading distances for the visual flight deck or Air Traffic Control tasks relevant to the normal work environment.</p>	<p>NOTE: N5 refers to the Faculty of Ophthalmologist's Reading Type.</p> <p>(2) An applicant who needs correction to meet this requirement will require "look-over", bifocal or trifocal lenses to enable him to read the instruments and a chart or manual held in the hand, and also make use of distant vision through the windscreen without removing his lenses. Single- vision near correction (full lenses of one power only, appropriate to reading) significantly reduces distant visual acuity. Whenever there is a requirement to obtain or renew correcting lenses, an applicant shall advise the refractionist of reading distances for the visual cockpit tasks relevant to the type of aircraft in which he is likely to function or to other aviation tasks.</p>	
<p>1.37 All contact lens wearers shall have replacement spectacles available for immediate use in the event the contact lens(es) become dislodged or are required to be removed in flight; and</p> <p>Hard contact lens wearers shall be required to have two pairs of spectacles available to overcome the frequent phenomenon of spectacle blur. In such cases, one pair of</p>	<p>2.37 All contact lens wearers shall have replacement spectacles available for immediate use in the event the contact lens(es) become dislodged or are required to be removed while exercising the privileges of the wearers licence; and</p> <p>Hard contact lens wearers shall be required to have two pairs of spectacles available to overcome the frequent phenomenon of</p>	<p>3.37 All contact lens wearers are required to have replacement spectacles available for immediate use in the event the contact lens(es) become dislodged or are required to be removed in flight; and</p> <p>Hard contact lens wearers shall be required to have two pairs of spectacles available to overcome the frequent phenomenon of spectacle blur. In such cases one pair of</p>	<p>4.37 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT
(amended 2007/12/30)

Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
<p>spectacles shall correct the vision immediately following removal of the lens(es), the second pair shall correct the vision after the eye is stabilized.</p> <p>NOTE: When an applicant is licensed with the limitation "Valid only when wearing required contact lenses" further evaluation shall be required should the applicant, in the future, wish to wear spectacles only on a continuing basis while flying.</p> <p>(2) Prescription sun lenses shall not be deemed to meet these requirements for flight at night.</p>	<p>spectacle blur. In such cases, one pair of spectacles shall correct the vision immediately following removal of the lens(es), the second pair shall correct the vision after the eye is stabilized.</p> <p>NOTE: When an applicant is licensed with the limitation "Valid only when wearing required contact lenses" further evaluation shall be required should the applicant, in the future, wish to wear spectacles only on a continuing basis while exercising the privileges of the applicants licence.</p> <p>(2) Prescription sun lenses shall not be deemed to meet these requirements for night duties.</p>	<p>spectacles shall correct the vision immediately following removal of the lens(es), the second pair shall correct the vision after the eye is stabilized.</p> <p>NOTE: When an applicant is licensed with the limitation "Valid only when wearing required contact lenses" further evaluation shall be required should the applicant, in the future, wish to wear spectacles only on a continuing basis while flying.</p> <p>(2) Prescription sun lenses shall not be deemed to meet these requirements for flight at night.</p>	
Ocular Muscle Balance			
<p>1.38 The applicant shall be assessed with the Cover-Uncover Test, or an appropriate technique to measure the amount of exophoria, esophoria and hyperphoria present in prism diopters. The acceptable limits shall be 6 diopters for exophoria and esophoria, and 1 diopter for hyperphoria.</p> <p>NOTE: Applicants found to have ocular muscle imbalance greater than the above noted shall be referred to an eye specialist for evaluation. Such cases shall be licensed under the standards provided that</p>	<p>2.38 The applicant shall be assessed with the Cover-Uncover Test, or an appropriate technique to measure the amount of exophoria, esophoria and hyperphoria present in prism diopters. The acceptable limits shall be 6 diopters for exophoria and esophoria, and 1 diopter for hyperphoria.</p> <p>NOTE: Applicants found to have ocular muscle imbalance greater than the above noted shall be referred to an eye specialist for evaluation. Such cases shall be assessed fit if this assessment is valid</p>	<p>3.38 The applicant shall be assessed with the Cover-Uncover Test, or an appropriate technique to measure the amount of exophoria, esophoria and hyperphoria present in prism diopters. The acceptable limits shall be 6 diopters for exophoria and esophoria, and 1 diopter for hyperphoria.</p> <p>NOTE: Applicants found to have ocular muscle imbalance greater than the above noted shall be referred to an eye specialist for evaluation. Such cases shall be assessed fit if this assessment is valid</p>	<p>4.38 Not allocated.</p>

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
there is no danger of developing diplopia during the course of a prolonged or difficult flight.	according to accredited medical conclusion.	according to accredited medical conclusion.	
Colour Perception Requirement			
1.39 The candidate shall be required to demonstrate his ability to perceive readily those colours the perception of which is necessary for the safe performance of his duties. For this requirement, one of the following colour test plates and score shall be used. See the following "Table for Colour Perception Requirement 1.39" for requirements.	2.39 The candidate shall be required to demonstrate his ability to perceive readily those colours the perception of which is necessary for the safe performance of his duties. For this requirement, one of the following colour test plates and score shall be used. See the following "Table for Colour Perception Requirement 2.39" for requirements.	3.39 The candidate shall be required to demonstrate his ability to perceive readily those colours the perception of which is necessary for the safe performance of his duties. For this requirement, one of the following colour test plates and score shall be used. See the following "Table for Colour Perception Requirement 3.39" for requirements.	4.39 Not allocated.
1.40 If an applicant does not qualify under para. 1.39, the applicants colour vision shall be assessed fit under this requirement if he passes a Canadian Forces or Civil Aeronautics colour perception lantern test or a Farnsworth D-15 test.	2.40 If an applicant does not qualify under para. 2.39, the applicants colour vision shall be assessed fit under this requirement if he passes a Farnsworth D-15 test. NOTE: The colour perception lantern test is no longer acceptable for a Category 2 (Air Traffic Controller Licence).	3.40 If an applicant does not qualify under para. 3.39, the applicants colour vision shall be assessed fit under this requirement if he passes a Canadian Forces or Civil Aeronautics colour perception lantern test or a Farnsworth D-15 test.	4.40 Not allocated.
1.41 An applicant who does not qualify under paras. 1.39 or 1.40 shall be assessed as fit for a restricted Commercial Pilot Licence provided the licence is issued with the following restriction: "Valid daylight only, 2-way radio required at controlled airports".	2.41 Not allocated.	3.41 Applicants who do not meet the Requirements of paras. 3.39 and 3.40 may be considered fit with the following restriction: "Valid daylight only, 2-way radio required at controlled airports".	4.41 Not allocated.

PHYSICAL AND MENTAL REQUIREMENT (amended 2007/12/30)			
Medical Category 1	Medical Category 2	Medical Category 3	Medical Category 4
NOTE: The colour perception practical test is no longer acceptable.		NOTE: The colour perception practical test is no longer acceptable.	

424.18 - 424.20 *Reserved*

**Table for Colour Perception Requirement
1.39**

Types of Plates (pseudo-isochromatic)	Edition	Plates to be Read	Max # Errors
American Optical	18 plates (1378A)	1-18 (include)	3
Ishihara	14 plates	1-11 (include)	1
Ishihara	16 plates	1- 8 (include)	1
Ishihara	24 plates	1-15 (include)	2
Ishihara	36 plates	1-21 (include)	3
American Optical	20 plates	1- 6 (include)	0
HRR	(2nd. ed)		
*Titmus Vision Tester		ALL	0
*Keystone Orthoscope		ALL	0
*Keystone Telebinocular		ALL	0
*If failed, retest with plates to verify.			

**Table for Colour Perception Requirement
2.39**

Types of Plates (pseudo-isochromatic)	Edition	Plates to be Read	Max # Errors
American Optical	18 plates (1378A)	1-18 (include)	3
Ishihara	14 plates	1-11 (include)	1
Ishihara	16 plates	1- 8 (include)	1
Ishihara	24 plates	1-15(include)	2
Ishihara	36 plates	1-21 (include)	3
American Optical	20 plates	1- 6 (include)	0
HRR	(2nd. ed)		
*Titmus Vision Tester		ALL	0
*Keystone Orthoscope		ALL	0
*Keystone Telebinocular		ALL	0
*If failed, retest with plates to verify.			

**Table for Colour Perception Requirement
3.39**

Types of Plates (pseudo-isochromatic)	Edition	Plates to be Read	Max # Errors
American Optical	18 plates(1378A)	1-18 (include)	3
Ishihara	14 plates	1-11 (include)	1
Ishihara	16 plates	1- 8 (include)	1
Ishihara	24 plates	1-15 (include)	2
Ishihara	36 plates	1-21 (include)	3
American Optical	20 plates	1- 6 (include)	0
HRR	(2nd. ed)		
*Titmus Vision Tester0		ALL	0
*Keystone Orthoscope		ALL	0
*Keystone Telebinocular		ALL	0
*If failed, retest with plates to verify.			

Appendix I

Civil Aviation Medical Examination Report

Transport Canada Transports Canada Safety and Security Sécurité et sûreté		► PROTECTED WHEN COMPLETED ◀	
CIVIL AVIATION MEDICAL EXAMINATION REPORT			
PART A: (TO BE COMPLETED BY APPLICANT)			
Type of Permit / Licence desired (If A.T.C. state position)		Aviation Permit / Licence held (Type)	
Permit / Licence Number		Telephone Number	
Given Names		Surname	
Address (Number, Street, Apt.)		City, Province	
Has your mailing address changed since your last medical? <input type="checkbox"/> Yes <input type="checkbox"/> No		Date of Birth Y M D	
Place of Birth (Country)		Male <input type="checkbox"/> Female <input type="checkbox"/>	
Occupation		PILOT FLIGHT TIME	
Employer		Last 90 days Last 12 months Grand Total	
Have you had an aircraft accident since your last civil aviation medical examination? <input type="checkbox"/> Yes <input type="checkbox"/> No Date Y M D Place		Have you ever been refused issue or renewal of a Civil Aviation Licence for medical reasons? <input type="checkbox"/> Yes <input type="checkbox"/> No Date of last Audiogram Y M D	
Have you consulted a physician since your last aviation medical examination? If yes, give reason		Are you receiving a pension or compensation for injury? <input type="checkbox"/> Yes <input type="checkbox"/> No Date of last E.C.G. Y M D	
Last Civil Aviation Medical Examination Date Y M D		Place (City, Province) or Country	
Primary Type of flying intended <input type="checkbox"/> Recreation <input type="checkbox"/> Business <input type="checkbox"/> Career		Language of Aeronautical Publications <input type="checkbox"/> English <input type="checkbox"/> French	
PART B: (TO BE COMPLETED BY EXAMINER)			
Is there a family history of		Details - To be completed by Medical Examiner	
1 Mental illness		C.V. Risk Factors Examiner please tick (✓)	
2 Cardiovascular disease or hypertension		Family History Smoking	
3 Diabetes		Hypertension Diabetes	
		Obesity Serum Lipids	
REVIEW OF SYSTEMS			
Has the applicant ever had or been treated for any of the following conditions?			
1 Head injury, dizziness, loss of consciousness		9 Gastrointestinal disorders	
2 Frequent or severe headaches		10 Musculo-skeletal disorders	
3 Epilepsy		11 Menstrual disorders	
4 Psychiatric/neurological problems		12 Alcohol or substance abuse	
5 Ear disease or deafness		13 Any other medical conditions	
6 Allergies		14 Current medications (Prescriptions or OTC)	
7 Pulmonary disorders including asthma		15 Does the applicant smoke more than 5 cigarettes per day?	
8 Cardiovascular disorders including hypertension		16 Weekly alcohol intake (Units)	
Examiner please elaborate			
List injuries, operations, serious illnesses and dates			
STATEMENT OF APPLICANT			
I hereby declare that I have read and understood the above information which to the best of my knowledge is complete and correct. I recognize that this report and any other medical documentation submitted or authorized to be submitted by me as part of my application for licence or permit is the property of the Department of Transport Civil Aviation Medical Advisors.			
I authorize the release of any information contained herein or in other relevant general medical examination reports including electrocardiograms, audiograms, X-ray reports, and eye specialist reports to the personnel licensing authorities and release this and other relevant medical information to the Department of Transport Civil Aviation Medical Advisors for the sole purpose of establishing my medical fitness to hold any licence or permit issued by the Department of Transport.			
Date Y M D		Applicant's Signature Witness	
PART D: CIVIL AVIATION MEDICAL EXAMINER'S RECOMMENDATION (TO BE COMPLETED AFTER MEDICAL EXAMINATION)			
RECOMMENDATION			
Please tick (✓) <input type="checkbox"/> Fit <input type="checkbox"/> Unfit <input type="checkbox"/> Deferred		Was a 90 day renewal assigned?	
Category <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4		Do you recommend further examination?	
Remarks		Are you sending a separate confidential report?	
Date Y M D		Telephone	
		CAME Signature	

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CANADIAN AVIATION REGULATIONS

PART C: (TO BE COMPLETED BY EXAMINER)

PHYSICAL EXAMINATION				Blood Pressure(s)	Identifying Marks																								
Height cm	Weight kg	Colour of Hair	Colour of Eyes																										
Check each item				Elaborate on each abnormal response with diagnosis if possible																									
1 Nutrition																													
2 Nose and Throat																													
3 Ears																													
4 Respiratory System																													
5 Cardiovascular																													
6 Gastro Intestinal																													
7 Genito-urinary																													
8 Locomotor																													
9 Neurological																													
10 Mental status																													
11 Integument																													
VISUAL EXAMINATION																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">ACUITY</th> <th colspan="2" style="text-align: center;">Glasses</th> <th colspan="2" style="text-align: center;">Contact Lenses</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Right Eye</td> <td style="text-align: center;">/</td> <td style="text-align: center;">Corrected to</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> </tr> <tr> <td style="text-align: center;">Left Eye</td> <td style="text-align: center;">/</td> <td style="text-align: center;">Corrected to</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> </tr> <tr> <td style="text-align: center;">Both Eyes</td> <td style="text-align: center;">/</td> <td style="text-align: center;">Corrected to</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> <td style="text-align: center;">/</td> </tr> </tbody> </table>						ACUITY		Glasses		Contact Lenses		Right Eye	/	Corrected to	/	/	/	Left Eye	/	Corrected to	/	/	/	Both Eyes	/	Corrected to	/	/	/
ACUITY		Glasses		Contact Lenses																									
Right Eye	/	Corrected to	/	/	/																								
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PSEUDOISOCROMATIC PLATES		Type	Number of Plates	Number of errors																									
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Whispered voice (Record distance in metres) Right		AUDIOGRAM / AUDIOSCOPE (IF APPLICABLE)																											
Left		Hz	500	1000	2000	3000																							
Right		/	/	/	/	/																							
Left		/	/	/	/	/																							
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Glucose		Other																											
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2nd Category		Suffix		Comments / Restrictions																									
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Year		Month		Day																									
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Restrictions, Limitations		Restrictions, Limitations		Date																									
Advisory Notes Codes		Advisory Notes Codes		Entered by (ApI)																									
Date		Date		Date																									

Appendix II
Medical Certificates - Limitations
(amended 2005/12/01)

Code	Language	Limitation	Include text	Active
300	E	Glasses must be available	F	T
300	F	Des verres prescrits doivent etre disponibles	F	T
301	E	Glasses must be worn	F	T
301	F	Des verres prescrits doivent etre portes	F	T
302	E	Contact lenses must be worn	F	T
302	F	Des verres de contact prescrits doivent etre portes	F	T
303	E	Glasses or contact lenses must be worn	F	T
303	F	Verres prescrits ou verres de contact doivent etre portes	F	T
304	E	No contact lenses	F	T
304	F	Pas de verres de contact	F	T
305	E	Bifocal glasses must be worn	F	T
305	F	Des verres a double foyer prescrits doivent etre portes	F	T
306	E	Trifocal glasses must be worn	F	T
306	F	Des verres a triple foyer prescrits doivent etre portes	F	T
307	E	Headband or cableframe required	F	T
307	F	Bande elastique ou cote-cable requise	F	T
308	E	Monocular	F	F
308	F	Vision monoculaire	F	F
309	E	Hearing aid required	F	T
309	F	Prothese auditive requise	F	T
310	E	Truss	F	T

Code	Language	Limitation	Include text	Active
310	F	Bandage herniaire	F	T
311	E	Prothesis must be fitted	F	F
311	F	Prothese adequate doit etre ajustee	F	F
312	E	Paraplegic	F	F
312	F	Paraplegique	F	F
313	E	Special map	F	F
313	F	Gcm special	F	F
314	E	Licence restricted	F	T
314	F	Licence limitee	F	T
315	E	Valid daylight only, 2-way radio required at controlled airports	F	T
315	F	Valide pour les vols de jour seulement, doit avoir un emetteur-recepteur pour utiliser les aeroports controles	F	T
316	E	3 months only	F	T
316	F	3 mois seulement	F	T
317	E	6 months only	F	T
317	F	6 mois seulement	F	T
318	E	9 months only	F	T
318	F	9 mois seulement	F	T
319	E	Not eligible for 60-day renewal on reverse side	F	F
319	F	Non admissible a la prorogation de 60 jours au verso	F	F
320	E	Subject to letter dated	T	T
320	F	Sous reserve des conditions dans la lettre datee du	T	T
321	E	Glasses must be worn except when performing radarscope duties	F	T
321	F	Des verres prescrits doit etre portes sauf en executant les	F	T

Code	Language	Limitation	Include text	Active
		fonctions de controle par radar		
322	E	12 months only	F	T
322	F	12 mois seulement	F	T
323	E	24 months only	F	T
323	F	24 mois seulement	F	T
324	E	Restricted to balloons only	F	T
324	F	Limite aux ballons seulement	F	T
325	E	Restricted to commercial only	F	T
325	F	Limite au professionnel seulement	F	T
326	E	Restricted to flight engineer only	F	T
326	F	Limite au mecanicien navigant seulement	F	T
327	E	Restricted to gliders only	F	T
327	F	Limite aux planeurs seulement	F	T
328	E	Restricted to gyroplanes only	F	T
328	F	Limite aux auto-gires seulement	F	T
329	E	Restricted to flight navigator only	F	T
329	F	Limite au navigateur seulement	F	T
330	E	Restricted to air traffic controller only	F	T
330	F	Limite au controleur de la circulation aerienne seulement	F	T
331	E	Restricted to ultra-lights only	F	T
331	F	Limite aux ultra-legers seulement	F	T
332	E	Contact lens must be worn in right eye	F	T
332	F	Un verre de contact prescrit doit etre porte dans l'oeil droit	F	T
333	E	Contact lens must be worn in left eye	F	T

Code	Language	Limitation	Include text	Active
333	F	Un verre de contact prescrit doit être porté dans l'œil gauche	F	T
334	E	Headset required	F	T
334	F	Micro-casque requis	F	T
335	E	Hearing aid or headset required	F	T
335	F	Prothèse auditive ou micro-casque requis	F	T
336	E	Hearing aid must be worn in right ear	F	T
336	F	Prothèse auditive doit être portée dans l'oreille droite	F	T
337	E	Hearing aid must be worn in left ear	F	T
337	F	Prothèse auditive doit être portée dans l'oreille gauche	F	T
338	E	Noise cancelling headphone must be worn	F	T
338	F	Écouteurs qui annulent le bruit doit être porté	F	T
339	E	Two pair of glasses must be available	F	T
339	F	Deux paires des verres prescrits doivent être disponibles	F	T
340	E	Glasses or contact lens in left eye must be worn	F	T
340	F	Des verres prescrits ou un verre de contact dans l'œil gauche doit être porté	F	T
341	E	Left eye patch must be worn	F	T
341	F	Couvre-œil gauche doit être porté	F	T
342	E	Intra-ocular contact lens in left eye	F	T
342	F	Verre de contact greffe dans l'œil gauche	F	T
343	E	Contact lenses may be worn	F	T
343	F	Des verres de contact est autorisé	F	T
344	E	Contact lens in left eye may be worn	F	T
344	F	Un verre de contact dans l'œil gauche est autorisé	F	T

Code	Language	Limitation	Include text	Active
345	E	Contact lens in right eye may be worn	F	T
345	F	Un verre de contact dans l'oeil droit est autorise	F	T
346	E	Glasses may be worn	F	T
346	F	Des verres prescrits est autorise	F	T
347	E	Not valid for air traffic controller licence	F	T
347	F	Non valide pour une licence de controleur de la circulation aerienne	F	T
348	E	Restricted to aeroplanes only	F	T
348	F	Limite aux avions seulement	F	T
349	E	Leg brace must be worn	F	T
349	F	Appareil orthopedique pour la jambe doit etre porte	F	T
350	E	Hard protective helmet must be worn	F	T
350	F	Casque protecteur dur doit etre porte	F	T
351	E	Valid only when another air traffic controller available and competent to assume your duties	F	T
351	F	Valide seulement lorsqu'un autre controleur de la circulation aerienne competent est disponible pour assumer vos fonctions	F	T
352	E	Must use supplementary oxygen	F	T
352	F	Doit utiliser l'oxygene supplementaire	F	T
353	E	Contact lens must be worn.glasses must be available or bifocals worn	F	T
353	F	Des verres de contact prescrits doivent etre portes. Des verres prescrits doivent etre disponibles ou des double foyer portes	F	T
354	E	Intra-ocular contact lens in left and right eye	F	T
354	F	Verre de contact greffe dans oeil droit et gauche	F	T
355	E	Valid with or as co-pilot	F	F

Code	Language	Limitation	Include text	Active
355	F	Valide avec ou en qualite de co-pilote	F	F
356	E	With an accompanying pilot	F	T
356	F	Avec un pilote accompagnateur	F	T
357	E		F	T
357	F		F	T
358	E	Glasses must be worn except when performing radarscope or data position duties	F	T
358	F	Des verres prescrits doivent etre portes sauf en executant les fonctions de controle par radar ou au poste de registre des donnees	F	T
359	E	Canadian airspace only	F	F
359	F	Espace aerien canadien seulement	F	F
360	E	Not valid for the issue of a recreational pilot permit or a student pilot permit - aeroplane	F	T
360	F	Non valide pour distribution de permis de pilote de loisir ou permis d'eleve-pilote aeronef	F	T
361	E	Intra-ocular contact lens in right eye	F	T
361	F	Verre de contact greffe dans l'oeil droit	F	T
399	E		F	T
399	F		F	T

**Appendix II -
Licences - Restrictions
(amended 2005/12/01)**

Code	Language	Restriction	Include text	Active
100	E	Daylight flying only	F	T
100	F	Vol de jour seulement	F	T
101	E	Valid daylight only, 2-way radio required at controlled airports	F	T
101	F	Valide pour les vols de jour seulement, doit avoir un émetteur-recepteur pour utiliser les aéroports contrôlés	F	T
102	E	No passengers	F	T
102	F	Pas de passagers	F	T
103	E	Shoulder harness and elt required	F	T
103	F	Harnais de sécurité et radio-balise de secours requis	F	T
104	E	No aerobatic flight	F	T
104	F	Voltige interdite	F	T
105	E	Powered parachutes only	F	T
105	F	Parachutes motorisés seulement	F	T
106	E	Hand controlled	T	T
106	F	A commande manuelle	T	T
107	E	Individual type	T	T
107	F	Type particuliers	T	T
108	E	Hand controlled landplanes	T	F
108	F	Avions à commande manuelle	T	F
109	E	Hand controlled type(s)	T	F
109	F	Type(s) à commande manuelle	T	F

Code	Language	Restriction	Include text	Active
110	E	Individual type balloons as follows	T	F
110	F	Les types de ballons particuliers suivants	T	F
111	E	Valid in aircraft operated by	T	T
111	F	Valide sur les aeronefs qui sont utilises par	T	T
112	E	Valid with or as co-pilot	T	T
112	F	Valide avec ou en qualite de co-pilote	T	T
113	E	Instruction privileges valid to	T	T
113	F	Les privileges d'instruction valide jusqu'au	T	T
114	E	Valid with or as co-pilot	F	T
114	F	Valide avec ou en qualite de co-pilote	F	T
115	E	Valid with or as co-pilot in aircraft operated by transport canada	F	T
115	F	Valide avec ou en qualite de co-pilote sur les aeronefs qui sont utilises par transports canada	F	T
116	E	Valid for aerial work only	F	T
116	F	Valide pour le travail aerien seulement	F	T
117	E	Valid only when another air traffic controller available and competent to assume your duties	F	T
117	F	Valide seulement lorsqu'un autre controleur de la circulation aerienne competent est disponible pour assumer vos fonctions	F	T
118	E	Endorsement of additional aircraft types subject to demonstrated ability	F	T
118	F	L'annotation de types d'aeronefs additionels est sujette a une demonstration de competence	F	T
119	E	Valid with a safety pilot	F	F
119	F	Valide avec un pilote qualifie	F	F
120	E	Subject to letter dated	T	T

Code	Language	Restriction	Include text	Active
120	F	Sous reserve des conditions dans la lettre datee du	T	T
121	E	Licence restricted	F	T
121	F	Licence limitee	F	T
122	E	Issued on the basis of	T	T
122	F	Delivre sur la foi de	T	T
123	E	Restricted to single engine land aeroplanes	F	T
123	F	Limitee aux avions monomoteurs terrestres	F	T
124	E	Not valid for upgrade	F	T
124	F	Non valide pour rehausser	F	T
125	E	Issued on the basis of united states, private pilot licence	T	T
125	F	Delivre sur la foi des etats-unis, licence de pilote prive	T	T
126	E	Altitude restricted to 10,000 feet maximum	F	T
126	F	Altitude limitee a un maximum de 10,000 pieds	F	T
127	E	Restricted to single engine fixed gear aircraft	F	T
127	F	Limitee aux avions monomoteurs terrestres avec train d'atterrissage fixe	F	T
128	E	Flight manoeuvres restricted to +3g maximum	F	T
128	F	Manoeuvre de vol a un maximum de +3g	F	T
129	E	Restricted to aeroplanes only	F	T
129	F	Limitee: aux avions seulement	F	T
130	E	Restricted to single engine land private pilot only	F	T
130	F	Limitee aux avions monomoteurs terrestres licence privee seulement	F	T
131	E	Valid only when wearing special leatherette holding glove model PC262RL on left hand	F	T

Code	Language	Restriction	Include text	Active
131	F	Valide sous reserve de port d'un gant avec un attachement special dans la main gauche en similicuir de modele PC26251	F	T
132	E	Restricted to aircraft 4,000 lbs or less	F	T
132	F	Limitee aux types d'aeronefs 4,000 livres ou moins	F	T
133	E	Valid in nordo aircraft only	F	T
133	F	Valide seulement pour avions nordo	F	T
134	E	Not valid for aircraft equipped with toe brakes	F	T
134	F	Non valide pour aeronefs avec palonnier	F	T
135	E	Not valid for aircraft with manually operated flaps	F	T
135	F	Non valide sur les aeronefs avec les leviers de commande operes manuellement	F	T
136	E	Second officer duties	T	T
136	F	Les fonctions de second officier	T	T
137	E	Not valid for commercial operations in multi-engine aircraft	F	T
137	F	Non valide pour les operations professionnelles dans les aeronefs multimoteurs	F	T
138	E	Restricted to landplanes equipped with hand controlled brakes	F	T
138	F	Limitee aux avions terrestres de freins a main	F	T
139	E	Valid only in BH47 helicopter with the co-pilots collective installed in addition to the pilots controls	F	T
139	F	Valide seulement sur l'helicoptere BH47 avec un collectif de co-pilote installe en surplus des controles de pilote	F	T
140	E	A transmit button installed on or near the collective that can be activated without removing the right hand from collective	F	T
140	F	Un bouton transmetteur installe sur ou en proximite du collectif qui peut etre active sans enlever la main droite	F	T

Code	Language	Restriction	Include text	Active
		du collectif		
141	E	SK61 restricted to aerial in Canada and U.S.A. only	F	T
141	F	Restriction sur SK61 travail aerien seulement aux canada et au E.U.	F	T
142	E	Landplanes and seaplanes only with required flap control lever modification	F	T
142	F	Avions terrestres et hydravions seulment avec volets munis de levier de commande modifie	F	T
143	E	Individual type landplanes equipped with handbrakes and fitted with leg strap anchor	F	T
143	F	Avions terrestres de type individuel equipes de freins a main et d'une bandelette de jambe a l'ancre	F	T
145	E	With tricycle landing gear	F	T
145	F	Avec train d'atterrissage tricycle	F	T
146	E	Weight shift only	F	T
146	F	Pendulaire seulement	F	T
147	E	Valid only in dual control aircraft equipped with lockable shoulder harness	F	T
147	F	Valide seulement dans les aeronefs equipe d'une double commande et d'harnais de securite qui peut etre ferme	F	T
148	E	One passenger only	F	T
148	F	Un passager seulement	F	T
149	E	Day VFR only	F	T
149	F	Vfr de jour seulement	F	T
150	E	Restricted to single-engine powered aeroplanes with handbrakes	F	T
150	F	Limitee aux avions monomoteurs terrestres avec freins a main seulement	F	T

Code	Language	Restriction	Include text	Active
151	E	Valid only with radar scope which do not have polychromatic displays	F	T
151	F	Valide seulement avec des ecrans radars sans affichages polychromes	F	T
152	E	Hot air balloons	F	T
152	F	Ballons a air chaud	F	T
153	E	Glasair II RG C-FLTB	F	T
153	F	Glasair II RG C-FLTB	F	T
154	E	Operating canadian registered aircraft on	T	T
154	F		T	T
155	E	Valid for private recreational purposes only in accordance with the privileges of the	T	T
155	F		T	T
156	E	Valid for	T	T
156	F		T	T
157	E	B747-CRP valid for co-pilot duties during the cruise phase of flight only. In accordance with ICAO, valid only with permission of the state being entered	F	T
157	F	B747-CRP un pilote de releve en croisiere peut agir seulement comme copilote durant la phase de vol en croisiere et selon l'OACI dans l'espace aerien d'un de ses etats avec sa permission	F	T
158	E	VFR over-the-top	F	T
158	F	VFR OTT	F	T
159	E	All single pilot non-high performance, single engine land and sea aeroplanes only	F	T
159	F	Tous les avions terrestres et hydravions monomoteurs, autres que ceux a hautes performances, dont l'equipage minimal de conduite est d'un seul pilote seulement	F	T
900	E	Not valid for pressurized aircraft	F	T

Code	Language	Restriction	Include text	Active
900	F	Non valide sur les aeronefs pressurises	F	T

Medical Certificates - Notes

Code	Language	Note	Include text	Active
600	E	ECG next medical	F	T
600	F	ECG requis au prochain examen medical	F	T
601	E	Valid 6 months only ECG to be submitted	F	T
601	F	Valable 6 mois obligation de presenter un ECG	F	T
602	E	Valid 12 months only ECG to be submitted	F	T
602	F	Valable 12 mois obligation de presenter un ECG	F	T
603	E	Audiogram next medical	F	T
603	F	Audiogramme requis au prochain examen medical	F	T
604	E	Valid 6 months only audiogram to be submitted	F	T
604	F	Valable 6 mois obligation de presenter un audiogramme	F	T
605	E	Ophthalmologist report next medical	F	T
605	F	Rapport d'ophtalmologiste avec prochain examen medical	F	T
606	E	Ophthalmologist report every 6 months	F	T
606	F	Rapport d'ophtalmologiste a chaque 6 mois	F	T
607	E	Ophthalmologist report every 12 months	F	T
607	F	Rapport d'ophtalmologiste a chaque 12 mois	F	T
608	E	Eye report next medical	F	T
608	F	Rapport des yeux requis au prochain examen medical	F	T
609	E	Eye report every 6 months	F	T
609	F	Rapport des yeux a chaque 6 mois	F	T
610	E	Eye report every 12 months	F	T

CANADIAN AVIATION REGULATIONS

Code	Language	Note	Include text	Active
610	F	Rapport des yeux a chaque 12 mois	F	T
611	E	Special reports	F	F
611	F	Rapports speciaux exigés	F	F
612	E	Flexibility applied under vision	F	F
612	F	Tolerance medicale sur le plan de la vue	F	F
613	E	Flexibility applied under colour perception	F	F
613	F	Tolerance medicale sur le plan de la vision chromatique	F	F
614	E	Flexibility applied under hearing	F	F
614	F	Tolerance medicale sur le plan de l'ouïe	F	F
615	E	Flexibility applied under physical	F	F
615	F	Tolerance medicale sur le plan physique	F	F
617	E	ECG next medical	F	T
617	F	ECG requis au prochain examen medical	F	T
618	E	Audiogram next medical	F	T
618	F	Audiogramme requis au prochain examen medical	F	T
619	E	Special reports 3 months	F	F
619	F	Rapports speciaux exigés 3 mois	F	F
620	E	Special reports 6 months	F	F
620	F	Rapports speciaux exigés 6 mois	F	F
621	E	Special reports 12 months	F	F
621	F	Rapports speciaux exigés 12 mois	F	F
622	E	Eye report every 18 months	F	T
622	F	Rapport des yeux a chaque 18 mois	F	T

Code	Language	Note	Include text	Active
623	E	Eye report every 24 months	F	T
623	F	Rapport des yeux a chaque 24 mois	F	T
624	E	Ophthalmologist report every 18 months	F	T
624	F	Rapport d'ophtalmologiste a chaque 18 mois	F	T
625	E	Ophthalmologist report every 24 months	F	T
625	F	Rapport ophtalmologiste a chaque 24 mois	F	T
626	E	Valid 3 months only ECG to be submitted	F	T
626	F	Valable 3 mois obligation de presenter un ECG	F	T
627	E	Practical flight test required each renewal	F	T
627	F	Epreuve pratique de test en vol requise a chaque renouvellement	F	T
628	E	ECG to be submitted	F	T
628	F	Obligation de presenter un ECG	F	T
629	E	Audiogram to be submitted	F	T
629	F	Obligation de presenter un audiogramme	F	T

Appendix III Medical Declaration



Transport Canada Transports Canada
Safety and Security Sécurité et sûreté

Protected

DOT File No
5802

MEDICAL DECLARATION FOR LICENCES AND PERMITS REQUIRING A CATEGORY 4 MEDICAL STANDARD

ALL APPLICANTS ARE TO COMPLETE PARTS A AND B.

STUDENT PILOT PERMIT - AEROPLANE AND RECREATIONAL PILOT PERMIT APPLICANTS ARE REQUIRED TO HAVE PART C COMPLETED.

IT IS AN OFFENCE UNDER SECTION 7.3(1)(a) OF THE AERONAUTICS ACT TO
KNOWINGLY MAKE A FALSE DECLARATION.

Issue/re-issue of a student pilot permit

Glider Ultra light Aeroplane

☐ ☐ ☐

Issue/renewal of a pilot licence/permit

Glider Ultra light Recreational
Private

☐ ☐ ☐

PART A PLEASE TYPE OR PRINT IN BLOCK LETTERS

Full given name(s)		Surname	Former Surname	Date of Birth
Mailing address		Number and Street	Appt. No.	Telephone No.
City/Town	Province	Postal Code	Sex	Place of Birth
			Male <input type="checkbox"/> Female <input type="checkbox"/>	

PART B MEDICAL DECLARATION

IF YOU HAVE EVER SUFFERED FROM ANY OF THE CONDITIONS LISTED BELOW YOU MUST UNDERGO A MEDICAL EXAMINATION WITH A CIVIL AVIATION MEDICAL EXAMINER.

If you have ever held a civil aviation licence or permit state

Title

Licence/Permit Number

I hereby declare -

1. That I have never suffered from any of the conditions listed below

- (A) Epilepsy, fits, or seizures;
(B) Significant head injury;
(C) Severe headaches or migraine;
(D) Diabetes requiring insulin or other medication;
(E) Heart disease, heart attack or high blood pressure;
(F) Coronary by-pass surgery or angioplasty;
(G) Chronic chest, sinus or ear condition;
(H) Chronic abdominal condition requiring medication;
(I) Eye trouble (e.g. vision not correctable to 20/30, inability to pass a motor vehicle vision test);

- (J) Nervous conditions requiring therapy or medication;
(K) Recurrent fainting, dizziness or blackout;
(L) Kidney disease/stones;
(M) Any other physical or mental disability;
(N) Alcohol or chemical dependence or abuse;
(O) Any difficulty with hearing or speech.

2. That I have never been denied, on medical grounds

- (A) A motor vehicle operators licence,
(B) A civil aviation personnel licence, or permit, or
(C) Life insurance.

I HEREBY CONSENT TO THE RELEASE OF THE ABOVE MEDICAL INFORMATION TO TRANSPORT CANADA AND TO TRANSPORT CANADA'S MEDICAL ADVISERS

ULTRA LIGHT AND GLIDER APPLICANTS REQUIRE A WITNESS SIGNATURE - RECREATIONAL PILOT PERMIT APPLICANTS DO NOT

Applicant's Signature

Date

Witness's Signature

PART C MEDICAL DECLARATION FOR STUDENT PILOT PERMIT - AEROPLANE AND RECREATIONAL PILOT PERMIT APPLICANTS. THIS MUST BE COUNTERSIGNED BY A PHYSICIAN LICENSED IN CANADA.

PHYSICIAN'S ATTESTATION

I have read the declaration made in Part B and to the best of my knowledge of the applicant's medical history, the declaration is accurate

Physician's Signature

Physician's Name - Please Print

Physician's Telephone No.

ELECTROCARDIOGRAM

(If Required)

NORMAL ☐

ABNORMAL ☐

Date

LICENSING - REGION



Entered in computer

Initials

Date

25-029/E (1997-03)



CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 425 - FLIGHT TRAINING

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STANDARD 425 - FLIGHT TRAINING

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Foreword

The *Personnel Licensing and Training Standards Respecting Flight Training* outline the requirements for complying with the Regulations respecting the requirements for Flight Training.

For ease of reference to the Regulations, the divisions and numbers of the Standards are assigned to correspond to the Regulations, therefore, section 425.21 of the Standards would reflect a standard required by section 405.21 of the Regulations.

In support of the Standards and for clarification, additional information may be found in the Appendices, in relevant Notes inserted throughout the Standards and in the *AIP Canada*.

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 425 - FLIGHT TRAINING

DIVISION II - FLIGHT TRAINING PROGRAM

425.13 *Flight Training Program Outline*

The flight training program outline provided to each trainee at the time of commencing a flight training program shall include the following:

- (a) the name of the program in which the trainee is enrolled;
- (b) information in respect of the minimum age, medical fitness, knowledge, experience and skill for which the training is being conducted; and
- (c) a copy of the current applicable Study and Reference Guide and Flight Test Standard; and
- (d) the minimum weather conditions required for dual and solo training flights during day, night, VFR and IFR operations including:
 - (i) minimum ceiling and visibility for local and cross-country training flights;
 - (ii) maximum cross-wind for conducting a take-off and landing;
 - (iii) minimum temperature for flight training operations;
- (e) the fuel reserves necessary for dual and solo, local and cross-country training flights;
- (f) the description and use of assigned practice areas;
- (g) the reporting of aircraft defects and unserviceabilities;
- (h) the securing of aircraft when not in use;
- (i) the procedures in the event of an unscheduled or forced landing; and
- (j) any other safety measures pertaining to the geographic area of operation that the person who conducts the flight training deems necessary for aviation safety.

DIVISION III - PERSONNEL AND AIRCRAFT

425.21 *Qualifications of Flight Instructors*

(1) A person who acts as a flight instructor shall be the holder of a pilot permit or pilot licence for the category, class and type of aircraft, as appropriate, on which the flight training is conducted.

(2) A person who conducts flight training in any category of aircraft, where the trainee does not hold a pilot permit or pilot licence for that category, or conducts a flight review, shall:

- (a) have a flight instructor rating for the category of aircraft used for the training; and
- (b) for aeroplanes, have experience of not less than 50 hours flight time on the class of aeroplane used for the training; or
- (c) for helicopters, have experience of not less than 10 hours flight time on the type of helicopter used for the training.

(3) A person who conducts flight training toward the issuance of a commercial pilot licence shall

(amended 2006/12/14)

- (a) have a flight instructor rating for the category of aircraft used for the training;

(amended 2006/12/14)

- (b) if the training is conducted within an integrated course in any phase of training after the VFR navigation progress test, have

(amended 2006/12/14)

- (i) not less than 500 hours of flight time in aeroplanes, of which not less than 200 hours is flight instructor experience; or

(amended 2006/12/14)

- (ii) an Airline Transport Pilot Licence—Aeroplane and a flight instructor rating; and

(amended 2006/12/14)

- (c) if the training is conducted within an integrated course on seaplane or specialty aerial work, conduct the training under the following conditions:

(amended 2006/12/14)

- (i) be duly authorized in writing by the Chief Flight Instructor;

(amended 2006/12/14)

- (ii) complete the minimum experience required for training in the specialty operation specified in the *Flight Training Operations Manual* in accordance with section 426.61 of the *Canadian Aviation Regulations*; and

(amended 2006/12/14)

- (iii) have the number of hours of instructional techniques, ground school instruction and flight training required before being authorized, as specified in the *Flight Training Operations Manual*.

(amended 2006/12/14)

- (d) if multi-crew coordination (MCC) training is conducted, be qualified on aeroplanes required to be operated with a co-pilot, be thoroughly familiar with human factors and crew resource management (CRM) and be familiar with the latest developments in human factors

training and CRM.

(amended 2006/12/14)

(4) A person who conducts flight training toward the issuance of a night rating shall have a flight instructor rating for the category of aircraft used for the training.

(5) A person who conducts flight training in a multi-engine aeroplane where the trainee does not have a multi-engine class rating shall:

(a) be the holder of a Commercial Pilot Licence or an Airline Transport Pilot Licence;

(b) have multi-engine pilot experience, which if acquired on centre thrust multi-engine aeroplanes may be credited toward qualifying a pilot to provide centre thrust multi-engine flight instruction only; and

(c) have experience of not less than 50 hours flight time on multi-engine aeroplanes with not less than 10 hours on the type of aeroplane used for the training.

(6) A person who conducts flight training toward the issuance of a landplane class rating or a seaplane class rating shall:

(a) be the holder of a Commercial Pilot Licence or an Airline Transport Pilot Licence; and

(b) have experience of not less than 50 hours flight time on the class of aeroplane used for the training.

(7) A person who conducts flight training toward the issuance of an aircraft type rating shall:

(a) in the case of training for a holder of an aeroplane pilot permit or pilot licence:
(amended 2006/12/14)

(i) be the holder of a Commercial Pilot Licence - Aeroplane or an Airline Transport Pilot Licence - Aeroplane; and
(amended 2005/12/01)

(ii) have experience of not less than 50 hours flight time on the class of aeroplane used for the training, of which not less than 10 hours must be on the aeroplane type;

(b) in the case of training for a holder of a helicopter pilot permit or pilot licence:
(amended 2006/12/14)

(i) be the holder of a Commercial Pilot Licence - Helicopter or an Airline Transport Pilot Licence - Helicopter; and
(amended 2005/12/01)

(ii) have experience of not less than 10 hours flight time on the type of helicopter used for the training;

(c) in the case of training for a holder of a Pilot Permit - Gyroplane:

(i) obtain an authorization under the *Canadian Aviation Regulations* to conduct the flight training; or

(amended 2006/12/14)

(ii) meet the requirements of paragraph (d);

(d) in the case of training for a holder of a Student Pilot Permit - Gyroplane:

(amended 2006/12/14)

(i) have a Flight Instructor Rating - Gyroplane and

(amended 2006/12/14)

(ii) have experience of not less than 50 hours flight time on gyroplanes, of which not less than 10 hours must be on the type of gyroplane used for the training; or

(iii) have a Flight Instructor Rating - Aeroplane or a Flight Instructor Rating - Helicopter and obtain an authorization under the *Canadian Aviation Regulations* to conduct the flight training;

(amended 2006/12/14)

(e) in the case of training for a holder of a Pilot Licence - Balloon or Student Pilot Permit - Balloon, have a Flight Instructor Rating - Balloon.

(amended 2006/12/14)

(8) A person who conducts flight training toward the issuance of a VFR Over-the-Top rating shall have a flight instructor rating for the category of aircraft used for the training.

(9) A person who conducts flight training toward the issuance of an instrument rating shall be the holder of a Commercial Pilot Licence or an Airline Transport Pilot Licence, have an instrument rating and:

(amended 2006/12/14)

(a) have a flight instructor rating; or

(amended 2006/12/14)

(b) have experience of not less than 500 hours pilot-in-command flight time, of which:

(amended 2006/12/14)

(i) not less than 100 hours shall be on the applicable aircraft group, and

(amended 1998/03/23)

(ii) in the case of Group I aircraft, not less than 10 hours shall be on the type of multi-engine aeroplane used for the training.

(amended 1998/03/23)

(10) A person who conducts flight training for experience in aerobatic manoeuvres shall:
(amended 2006/12/14)

(a) in the case of aeroplanes, have a Flight Instructor Rating - Aeroplane - Aerobatics; or
(amended 2006/12/14)

(b) in the case of gliders, have a Flight Instructor Rating - Glider - Aerobatics.
(amended 2006/12/14)

(11) A person who conducts ground school instruction for a flight instructor rating shall
(amended 2006/12/14)

(a) have a flight instructor rating for the category of aircraft used for the training; or
(amended 2006/12/14)

(b) be authorized, in accordance with section 406.24 of the *Canadian Aviation Regulations*, to conduct the ground school instruction.
(amended 2006/12/14)

(12) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Aeroplane or a Flight Instructor Rating - Helicopter shall have a Class 1 flight instructor rating for the category of aircraft used for the training.

(13) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Aeroplane - Aerobatic shall have a Class 1 Flight Instructor Rating - Aeroplane - Aerobatic.

(14) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Glider shall have a Flight Instructor Rating - Glider.

(15) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Glider - Aerobatic shall have a Flight Instructor Rating - Glider - Aerobatic.

(16) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Balloon shall have a Flight Instructor Rating - Balloon.

(17) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Gyroplane shall have a Flight Instructor Rating - Gyroplane.

(18) A person who conducts flight training toward the issuance of a Flight Instructor Rating - Ultra-light Aeroplane shall have:

(a) a Flight Instructor Rating - Ultra-light Aeroplane; or

(b) a Flight Instructor Rating - Aeroplane.

(19) A person who conducts flight training, using a synthetic flight training equipment, approved in accordance with section 606.03 of the *Canadian Aviation Regulations*, toward the issuance of a pilot licence or rating shall
(amended 2006/12/14)

(a) meet or have met the flight instructor rating qualifications for the applicable licence or rating; and

(amended 2006/12/14)

(b) have received instruction on the operation of the synthetic flight training equipment from a person trained in the operation of the device.

(amended 2006/12/14)

425.23 *Training Aircraft Requirements*

(1) An aircraft that is used for flight training shall:

(a) meet the aircraft equipment requirements of Subpart 605, in respect of the conditions and rules under which it is to be operated: day or night, VFR or IFR, and VMC or IMC;

(amended 1999/03/01)

(b) in the case of an aeroplane, be equipped with a turn and slip indicator or a turn coordinator; and

(amended 1999/03/01)

(c) in the case of a helicopter, be equipped with a turn and slip indicator, turn coordinator or a slip-skid indicator.

(amended 1999/03/01)

(2) An aircraft that is used for dual flight training, shall:

(amended 1999/03/01)

(a) be at least a two place aircraft;

(b) have engine power controls and flight controls that are easily reached and that operate in a normal manner from both pilot stations, unless in the case of an ultra-light aeroplane, the trainee has received sufficient ground training and is considered competent to operate the available appropriate controls; and

(amended 1999/03/01)

(c) in the case of a helicopter, be equipped with an intercom system

(amended 1999/03/01)

(3) An aeroplane or helicopter that is used for instrument flight training toward the Private Pilot Licence or Commercial Pilot Licence, shall be equipped with flight instruments that enable the trainee to complete the applicable manoeuvres specified in the instrument flying exercise of the Flight Test Standards - Private and Commercial Pilot Licences.

(amended 1999/03/01)

(4) An aeroplane or helicopter that is used for radio navigation training toward the Commercial Pilot Licence, Flight Instructor Rating or VFR Over-The-Top rating, shall be equipped with an ADF, VOR or GPS radio navigation aid receiver.

(amended 1999/03/01)

(5) An aeroplane or helicopter that is used for instrument flight training toward the VFR Over-The-Top rating, shall be equipped with flight instruments in accordance with Subpart 605, Section 605.15 - Power-driven Aircraft - VFR OTT.
(amended 1999/03/01)

(6) An aeroplane, helicopter or gyroplane that is used for instrument flight training toward the night rating, shall be equipped with flight instruments in accordance with Subpart 605, Section 605.16 - Power-driven Aircraft - Night VFR.
(amended 1999/03/01)

(7) An aeroplane or helicopter that is used for instrument flight training toward the instrument rating, shall be equipped with flight instruments in accordance with in Subpart 605, Section 605.18 - Power-driven Aircraft - IFR.
(amended 1999/03/01)

DIVISION IV - FLIGHT TRAINING OPERATIONS

425.33 *Pilot Training Record*

A pilot training record includes:

(a) form 26-0313 for aeroplane training or form 26-0316 for helicopter training, produced by the Minister; or

(b) a record that includes all items in the applicable form in paragraph (a).

(amended 2000/09/01)



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CANADIAN AVIATION REGULATIONS

PART IV – PERSONNEL LICENSING AND TRAINING

STANDARD 426 – FLIGHT TRAINING UNITS

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STANDARD 426 - FLIGHT TRAINING UNITS

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Foreword

This *Personnel Licensing and Training Standard* outlines the requirements for complying with the Flight Training Units Regulation Subpart 406 of the *Canadian Aviation Regulations*.

For ease of cross reference, the divisions and numbers of the standard are assigned to correspond to the regulations, therefore Standard 426.11 would reflect a standard required by section 406.11 of the Regulations.

In support of the standards and for clarification, additional information may be found in the Appendices, in relevant notes inserted throughout the standards and in the *AIP Canada*.

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 426 - FLIGHT TRAINING UNITS

DIVISION II - CERTIFICATION

426.11 *Issuance or Amendment of Flight Training Unit Operator Certificate*

(1) An application for a Flight Training Unit Operator Certificate shall include:
(amended 2006/12/14)

(a) Form 26-0380 Statement of Intent, completed and signed;
(amended 2006/12/14)

(b) Form 26-0344 Application for a Flight Training Unit Operator Certificate,
completed and signed;
(amended 2006/12/14)

(c) information with respect to the main base, including written permission from the
Local Airport Authority (LAA) or, where the applicant cannot obtain written
permission and operations have not been denied in writing by the LAA, other
information that demonstrates access to the aerodrome, such as information that the
applicant has facilities provided through a lease or contractual agreement;
(amended 2006/12/14)

(d) the name of the person who exercises control over the flight training unit as an
owner;
(amended 2006/12/14)

(e) the name of the person appointed as Chief Flight Instructor and a statement of
acceptance of the position, signed by that person, supported by a resume of
qualifications and experience;
(amended 2006/12/14)

(f) the name of the person appointed under section 406.36 of the *Canadian Aviation
Regulations* to be responsible for the maintenance control system;
(amended 2006/12/14)

(g) a description of the aircraft to be operated, including category, class, type and
registration;
(amended 2006/12/14)

(h) details of the type of flight training to be conducted;
(amended 2006/12/14)

(i) details of the proposed route for the solo cross-country training flight as outlined
in section 406.55 of the *Canadian Aviation Regulations*, if applicable;
(amended 2006/12/14)

(j) a copy of the flight training program outline, required by section 405.13 of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

(k) details of the proposed maintenance control system, including the maintenance control manual required by section 406.38 of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

(l) written confirmation of liability insurance coverage against risks of injury or death to passengers, and public liability, as required by section 606.02 of the *Canadian Aviation Regulations*; and

(amended 2006/12/14)

(m) where an integrated course is conducted, a copy of the flight training operations manual and training manual.

(amended 2006/12/14)

(2) An applicant shall have:

(amended 2006/12/14)

(a) a management organization capable of exercising operational control over any flight that is to be operated;

(amended 2006/12/14)

(b) managerial personnel who are employed on a full-time basis and perform the duties related to the following positions:

(amended 2006/12/14)

(i) a Chief Flight Instructor who:

(amended 2006/12/14)

(A) is appointed by the applicant,

(B) is employed on a full-time basis during flight training operations, and

(C) meets the requirements of section 406.22 of the *Canadian Aviation Regulations*; and

(ii) where the applicant does not hold an approved maintenance organization (AMO) certificate, a maintenance manager (person responsible for maintenance control system);

(amended 2006/12/14)

(iii) ground instructors and flight instructors who:

(amended 2006/12/14)

(A) are qualified to perform the duties to which they are assigned, and

(B) are collectively qualified to conduct all the authorized training;

(c) aircraft that are properly equipped and flight crew members who are qualified for the type of training that is being conducted.

(amended 2006/12/14)

(d) an operational control system that meets the requirements of section 406.50 of the *Canadian Aviation Regulations*;
(amended 2006/12/14)

(e) a training program that meets the requirements of this Subpart;
(amended 2006/12/14)

(f) legal custody and control of at least one aircraft or, where an integrated course is conducted, one aircraft for each class of aircraft that is to be operated;
(amended 2006/12/14)

(g) in the case of an applicant for a flight training unit operator certificate who conducts an integrated course, a flight training operations manual that meets the requirements of section 406.61 of the *Canadian Aviation Regulations* and a training manual that meets the requirements of section 406.62 of the *Canadian Aviation Regulations*; and
(amended 2006/12/14)

(h) a maintenance control system approved under this Subpart.
(amended 2006/12/14)

(3) An application for an operations specification regarding the conduct of flight training operations, on a temporary basis, at a satellite base shall include:
(amended 2006/12/14)

(a) information with respect to:

(i) the satellite base;
(amended 2006/12/14)

(ii) the name of the person assigned under section 406.58 of the *Canadian Aviation Regulations* to be responsible for flight training operations;
(amended 2006/12/14)

(iii) details of arrangements for aircraft maintenance;
(amended 2006/12/14)

(iv) a description of the aircraft to be operated, including category, class, type and registration;
(amended 2006/12/14)

(v) details of the type of flight training to be conducted;
(amended 2006/12/14)

(vi) details of the planned route for the solo cross-country training flight as outlined in section 406.55 of the *Canadian Aviation Regulations*, if applicable; and
(amended 2006/12/14)

(vii) the period of operation of the satellite base;
(amended 2006/12/14)

(b) a copy of the flight training program outline required by section 405.13 of the *Canadian Aviation Regulations*; and
(amended 2006/12/14)

(c) a statement signed by the Chief Flight Instructor of acceptance of the responsibility for supervision of flight training operations at the satellite base.
(amended 2006/12/14)

(4) An application for an operations specification regarding the conduct of flight training operations at a sub-base shall include:
(amended 2006/12/14)

(a) Form 26-0344 Application for Flight Training Unit Operator Certificate, completed and signed;
(amended 2006/12/14)

(b) information with respect to the sub-base, including written permission from the Local Airport Authority (LAA) or, where the applicant cannot obtain written permission and operations have not been denied in writing by the LAA, other information that demonstrates access to the aerodrome, such as information that the applicant has facilities provided through a lease or contractual agreement;
(amended 2006/12/14)

(c) the name of the person appointed as Assistant Chief Flight Instructor and a statement of acceptance of the position, signed by that person, supported by a resume of qualifications and experience;
(amended 2006/12/14)

(d) the name of the person appointed under section 406.36 of the *Canadian Aviation Regulations* to be responsible for the maintenance control system;
(amended 2006/12/14)

(e) a description of the aircraft to be operated, including category, class, type and registration;
(amended 2006/12/14)

(f) details of the type of flight training to be conducted;
(amended 2006/12/14)

(g) details of the planned route for the solo cross-country training flight as outlined in section 406.55 of the *Canadian Aviation Regulations*, if applicable;
(amended 2006/12/14)

(h) a copy of the flight training program outline, required by section 405.13 of the *Canadian Aviation Regulations*;
(amended 2006/12/14)

(i) details of the proposed maintenance control system, including the maintenance control manual, required by section 406.38 of the *Canadian Aviation Regulations*;
(amended 2006/12/14)

(j) written confirmation of liability insurance coverage against risks of injury or death to passengers, and public liability, as required by section 606.02 of the

Canadian Aviation Regulations; and
(amended 2006/12/14)

(k) a copy of the flight training operations manual.
(amended 2006/12/14)

426.14 *Quality Assurance Program* (amended 2006/12/14)

The flight training unit quality assurance program shall include:
(amended 2006/12/14)

(a) an initial internal audit;
(amended 2006/12/14)

(b) recurring internal audits conducted at 12-month intervals;
(amended 2006/12/14)

(c) records of internal audit findings;
(amended 2006/12/14)

(d) records of actions to correct findings of non-compliance;
(amended 2006/12/14)

(e) procedures to ensure that audit findings are communicated to the appropriate person and made available to the certificate holder;
(amended 2006/12/14)

(f) follow-up procedures to ensure that corrective actions instituted by the flight training unit are effective; and
(amended 2006/12/14)

(g) a record keeping system to ensure that details of audit findings, corrective actions, and follow-up procedures are recorded, and that the records are retained for two complete audit cycles.
(amended 2006/12/14)

DIVISION III - PERSONNEL

426.21 *Appointment of Chief Flight Instructor*

(1) A flight training unit may continue flight training operations without a chief flight instructor for a period of up to 60 days if:

(a) there are extenuating circumstances;

(b) there is suitable supervision and operational control; and

(c) such authorization is in the public interest and is not likely to affect aviation safety.

(2) A flight training unit may continue flight training operations with a chief flight instructor whose medical certificate is invalid and subject to a prohibition regarding exercise of the privileges of the permit, licence or rating, pursuant to section 404.06 - Prohibition Regarding Exercise of Privileges for a period of up to six months if: (amended 2000/09/01)

- (a) the chief flight instructor remains a full-time employee of the flight training unit;
- (b) the chief flight instructor remains responsible for all non-flight duties required of a chief flight instructor; and
- (c) the flight training unit has other staff qualified to carry out the airborne duties at that flight training unit.

426.22 Requirements for Chief Flight Instructor

The qualifications required for and the responsibilities in respect of the position of chief flight instructor are:
(amended 2006/12/14)

Qualifications

(1) A person may be appointed as Chief Flight Instructor for a flight training unit that is operating an aeroplane or helicopter where a flight instructor rating is required to conduct any of the authorized training, if that person:
(amended 1998/03/23)

(a) has a Class 1 or Class 2 Flight Instructor Rating for the category of aircraft in which the flight training is to be conducted; or
(amended 1998/03/23)

(b) has a Class 3 Flight Instructor Rating for aeroplane flight training provided no other flight instructor is employed at that flight training unit, and is not undergoing follow-up action pursuant to section 421.67 of the *Canadian Aviation Regulations*.
(amended 2006/12/14)

(2) A person may be appointed as Chief Flight Instructor for a flight training unit that is operating an aeroplane or helicopter where a flight instructor rating is not required to conduct any of the authorized training, if that person is qualified to conduct the training pursuant to section 405.21 of the *Canadian Aviation Regulations*.
(amended 2006/12/14)

(3) A person may be appointed as Chief Flight Instructor for a flight training unit that is operating a glider, balloon, gyroplane or an ultra-light aeroplane, if that person

- (a) is the holder of a pilot permit or pilot licence for the category of aircraft in which the flight training is to be conducted; and
- (b) has a flight instructor rating.

Responsibilities

(4) The Chief Flight Instructor of a flight training unit shall be responsible for operational control.

(5) A person who is appointed as Chief Flight Instructor for a flight training unit identified in subsection (1) shall be responsible for:

- (a) the management of the overall pilot training program;
(amended 2006/12/14)
- (b) the supervision of all flight and ground instructors of the flight training unit;
(amended 2006/12/14)
- (c) the direct supervision of Class 4 flight instructors, including the designation of a Class 1 or Class 2 flight instructor to supervise a Class 4 flight instructor;
(amended 2006/12/14)
- (d) approving of the appointment of ground instructors;
(amended 2006/12/14)
- (e) the quality and content of ground school instruction and flight training provided by that flight training unit;
(amended 2006/12/14)
- (f) the content and accuracy of Pilot Training Records, course reports, student pilot permits issued, licence applications and any other documents which form part of the training process;
(amended 2006/12/14)
- (g) ensuring that flight instruction is based on the contents of the appropriate flight instructor guide and flight training manual;
(amended 2006/12/14)
- (h) ensuring that the daily flight record is used for operational control;
(amended 2006/12/14)
- (i) ensuring that all appropriate publications including the *Canadian Aviation Regulations*, *Aeronautical Information Publication Canada*, *Canada Flight Supplement*, *Water Aerodrome Supplement*, *Flight Instructor Guide* and *Flight Training Manual*, and the applicable training manual on human factors are readily available to trainees and amended to date;
(amended 2006/12/14)
- (j) maintaining a current copy of training publications, charts, maps and any other material required for the ground instruction and flight training of trainees;
(amended 2006/12/14)
- (k) ensuring that all solo training flights are properly authorized by a flight instructor and acknowledged by the trainee;
(amended 2006/12/14)
- (l) decisions with respect to flight safety during flying periods;
(amended 2006/12/14)

(m) confirming the continuing validity of staff licences and ratings endorsed on a licence.

(amended 2006/12/14)

(n) ensuring that all staff members are kept informed of any changes to the regulations and standards;

(amended 2006/12/14)

(o) disseminating, and acting upon aeroplane safety information, including accident, incident, and other occurrence reports;

(amended 2006/12/14)

(p) developing and implementing an operational control system in accordance with section 406.50 of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

(q) where an integrated course is conducted, ensuring the development and implementation of a flight training operations manual in accordance with section 406.61 of the *Canadian Aviation Regulations* and a training manual in accordance with section 406.62 of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

(r) liaison with Transport Canada on all matters concerning flight training operations;

(amended 2006/12/14)

(s) delegation, in writing, of duties to the assistant chief flight instructor; and

(amended 2006/12/14)

(t) developing and implementing a plan of action in accordance with paragraph 421.67(3)(b) of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

426.22.1 Requirements for Assistant Chief Flight Instructor

(amended 2006/12/14)

The qualifications for and the responsibilities in respect of the position of assistant chief flight instructor are as follows:

(amended 2006/12/14)

(1) A person may be appointed as assistant chief flight instructor for a flight training unit that is operating an aeroplane or helicopter for which a flight instructor rating is required to conduct any of the authorized training, if that person has a Class 1, Class 2 or Class 3 flight instructor rating for the category of aircraft in which the flight training is to be conducted and is not undergoing follow-up action under section 421.67 of the *Canadian Aviation Regulations*.

(amended 2006/12/14)

(2) A person may be appointed as assistant chief flight instructor for a flight training unit that is operating an aeroplane or helicopter for which a flight instructor rating is not required to conduct any of the authorized training, if that person is qualified to

conduct the training under section 405.21 of the *Canadian Aviation Regulations*.
(amended 2006/12/14)

(3) The assistant chief flight instructor of a flight training unit shall be responsible for duties as assigned in writing by the Chief Flight Instructor.
(amended 2006/12/14)

426.22.3 Requirements for Check Instructor

(amended 2006/12/14)

The qualifications for and the responsibilities in respect of the position of check instructor are:
(amended 2006/12/14)

Qualifications

(1) A person may be appointed as check instructor for a flight training unit that is conducting an integrated course of pilot training if that person:
(amended 2006/12/14)

(a) holds a Class 1 or 2 flight instructor rating for the category of aircraft in which the flight training is to be conducted; and
(amended 2006/12/14)

(b) is not undergoing follow-up action under section 421.67 of the *Canadian Aviation Regulations*.
(amended 2006/12/14)

Responsibilities

(2) A person who is appointed as check instructor for a flight training unit conducting an integrated course of pilot training shall be responsible to the Chief Flight Instructor or designated assistant chief flight instructor for the conduct of progress tests required by the training manual or flight training operations manual.
(amended 2006/12/14)

(3) The check instructor may not conduct a progress test of any student for whom the check instructor has
(amended 2006/12/14)

(a) served as principal instructor; or
(amended 2006/12/14)

(b) recommended for the progress test.
(amended 2006/12/14)

426.24 Requirements for Ground Instructor

(amended 2006/12/14)

The requirements in respect of the position of ground instructor are:
(amended 2006/12/14)

A person may be appointed or act as ground instructor for a flight training unit if that person:

(amended 2006/12/14)

(a) demonstrates to the chief flight instructor, or designated assistant chief flight instructor or check instructor, that they have sufficient aviation experience to have technical competence in the subjects they are to teach; and

(amended 2006/12/14)

(b) is briefed by the chief flight instructor, or designated assistant chief flight instructor or check instructor, on his or her duties and responsibilities and the applicable instructional techniques set out in the *Flight Instructor Guide, Part I*.

(amended 2006/12/14)

426.25 Instructor Records

(1) An individual record for each ground instructor shall contain the following:

(a) the name of the ground instructor;

(amended 2006/12/14)

(b) the date of the appointment under section 406.24 of the *Canadian Aviation Regulations*; and

(amended 2006/12/14)

(c) a record of the demonstration of competency and briefing required under section 426.24 of the *Canadian Aviation Regulations*.

(amended 2006/12/14)

(2) An individual record for each flight instructor shall contain the following:

(a) the name of the flight instructor;

(b) the permit or licence number, the ratings endorsed therein and their valid to dates as applicable;

(amended 2006/12/14)

(c) the date on which the next medical examination is due; and

(amended 2006/12/14)

(d) the dates on which the person, while in the flight training unit's employ, successfully completed any training, flight test or examination required under Subpart 406, or obtained any qualification required under Subpart 406; and information relating to any failure of the person, while in the flight training unit's employ, to successfully complete any training, flight test, or examination required under Subpart 406, or to obtain any qualification required under Subpart 406.

(amended 2006/12/14)

(3) An individual record for other operational personnel, shall contain the following:

(amended 2006/12/14)

(a) the name of the operational personnel;

(amended 2006/12/14)

(b) the permit or licence number, the ratings endorsed therein and their valid to dates as applicable;
(amended 2006/12/14)

(c) the date on which the next medical examination is due, if applicable; and
(amended 2006/12/14)

(d) the dates on which the person, while in the flight training unit's employ, successfully completed any training, flight test or examination required under Subpart 406, or obtained any qualification required under Subpart 406; and information relating to any failure of the person, while in the flight training unit's employ, to successfully complete any training, flight test, or examination required under Subpart 406, or to obtain any qualification required under Subpart 406.
(amended 2006/12/14)

DIVISION IV - AIRCRAFT

426.36 *Person Responsible for Maintenance Control System*

Information Notes:

(i) *Unless otherwise explicitly indicated, nothing in the regulations, or this standard, requires the flight training unit to adopt the titles of the approved manuals, positions and programs used in the regulatory documents. The designations expressed are meant to facilitate the drafting of the applicable regulations and standards. Approved organizations are free to use any designation they wish, provided the pertinent regulations and standards are complied with.*
(amended 2005/05/31)

(ii) *The person responsible for the maintenance control system appointed pursuant to paragraph 406.19(1)(a) should be a member of the flight training unit staff. This is to ensure that the person appointed is free of any conflict of interest, and is primarily responsible to the flight training unit in regard to any dealings with the maintenance organization. Employees of a contracting maintenance organization therefore, do not qualify for this position. The requirement is not intended to imply that the person appointed must be a full time employee. Persons may be appointed on a part time basis, provided they are available for such periods as are necessary to effectively control the maintenance system, having regard to the type and frequency of flight operations.*
(amended 2005/05/31)

(1) An applicant for the "Person Responsible for the Maintenance Control System" position within a flight training unit shall demonstrate, during an interview conducted by Transport Canada regional personnel, that he or she is knowledgeable in respect of the flight training unit's policies approved by the Minister, and the topics listed below:
(amended 2005/05/31)

(a) duties and responsibilities of the appointed position;

(b) duties of persons who have been assigned functional responsibilities;

- (c) responsibilities of the flight training unit in relation to those of the AMO;
- (d) identification of acceptable reference data recognized by the aviation industry for maintenance schedules;
- (e) use of fleet sampling techniques;
- (f) control of repetitive inspections;
- (g) reliability program;
- (h) types and methods of control of mandatory maintenance tasks;
- (i) defect control;
- (j) technical dispatch procedures;
- (k) maintenance release requirements;
- (l) control of elementary work and servicing;
- (m) responsibility for record keeping; and
- (n) the function of quality assurance.

(2) The interview is designed to establish the applicant's knowledge. Questions and responses will be recorded.

(amended 2005/05/31)

426.37 Maintenance Personnel and Facilities

(1) There shall be sufficient staff for:

- (a) the initial development of the maintenance schedule as required by section 605.86 - Maintenance Schedule;
- (b) the scheduling and performance of maintenance, elementary work and servicing within the time constraints specified in the approved maintenance schedule;
- (c) the scheduling of the accomplishment of applicable Airworthiness Directives;
- (d) the operation of the evaluation program required by section 406.47;
- (e) the proper dispatch of aircraft in regard to:
 - (i) the availability of spare parts and the control of defects,
 - (ii) the conformity of aircraft with their type design, and
 - (iii) the requirements of other applicable operating rules;
- (f) the management of issuance of authorizations to personnel who are assigned to perform elementary work and servicing;
- (g) the liaison with approved maintenance organizations for the performance of maintenance; and
- (h) the initial development and the updating of the maintenance control manual.

(2) There shall be facilities, technical and regulatory data, supplies and spare parts, which shall include:

- (a) a place of business, with a fixed address;
- (b) a means of communication, such as telephone, facsimile machine, Telex, etc.;
- (c) devices used to establish when a particular aircraft requires maintenance, which may include planning bulletin boards, card files, or a computer system;
- (d) where the flight training unit performs elementary work or servicing, equipment and tools necessary to comply with section 571.02 - Maintenance Performance Rules;
- (e) sufficient supplies and spare parts to ensure timely rectification of defects in regard to MEL provisions; and
- (f) a secure, dry storage area to retain aircraft technical records.

426.38 Maintenance Control Manual

Except where otherwise incorporated by reference pursuant to CAR 406.38(2), the maintenance control manual of a flight training unit shall include the following information:

(amended 1998/09/01)

- (a) a Table of Contents;
- (b) an amendment control page;
- (c) a List of Effective Pages, with each page numbered and dated;
- (d) the legal name, trade name and address of the flight training unit;
- (e) the location of the main base and any satellite base;
- (f) the category, class, type and number of aircraft operated;
- (g) a statement signed by the flight training unit confirming that the maintenance control manual and any incorporated documents identified therein, reflect the flight training unit's means of compliance with section 406.35;
- (h) details of any assignment of maintenance control functions for specific maintenance control activities, pursuant to subsection 406.36(3) that includes:
 - (i) the name and title of the person to whom the function has been assigned,
 - (ii) a description of the function that has been assigned,
 - (iii) where necessary to ensure comprehension, a chart depicting the distribution of the functions;
- (i) a description of the maintenance control manual amendment control procedure that includes:
 - (i) a means of identifying each page of the MCM, with each page numbered and either dated or marked with a revision number, and
 - (ii) a List of Effective Pages;

- (j) a description of the system used to distribute the manual, including the name or title of each person who holds a copy of the manual, to ensure compliance with paragraph 406.38(1)(c);
- (k) details of the incorporation by reference of detailed procedures manuals, pursuant to subsection 406.38(2), that include policy affecting the detailed procedures;
- (l) a description of the procedures used to ensure that regulatory information and technical data appropriate for the work performed are used in respect of maintenance or elementary work, as required by CAR 571.02 - Maintenance Performance Rules;
(amended 1998/09/01)
- (m) details of the methods used to record the maintenance, elementary work or servicing performed, and ensure that any defects are recorded in the technical record established pursuant to section 605.92 - Requirement to Keep Technical Records;
- (n) where the organization performs maintenance or elementary work and uses methods, techniques, practices, parts, materials, tools, equipment and test apparatus that are other than those recommended by the manufacturer, pursuant to section 571.02 - Maintenance Performance Rules, the identification of those items;
- (o) the identification of any maintenance schedule approved pursuant to CAR 605.86 - Maintenance Schedule, in respect of any of the flight training unit's aircraft;
(amended 1998/09/01)
- (p) a detailed description of the procedure used to ensure that any maintenance tasks required by the maintenance schedule, an airworthiness directive, or any task required for the rectification of a defect is completed within the constraints specified in CAR 605 - Aircraft Maintenance Requirements;
(amended 1998/09/01)
- (q) details of procedures governing maintenance arrangements, that include procedures for approval of maintenance conducted by:
- (i) an AMO that is the flight training unit,
 - (ii) an AMO that is not the flight training unit,
 - (iii) a person or an organization outside of Canada that does not hold an AMO certificate, or
 - (iv) any other person or organization;
- (r) a list of all approved maintenance arrangements;
- (s) a description of procedures to ensure that only parts and materials that meet the requirements of CAR 571 - Aircraft Maintenance Requirements are used in the performance of maintenance or elementary work, including any details respecting part pooling arrangements that have been entered into;
(amended 1998/09/01)

- (t) a description of the methods used to ensure that the persons authorized to perform elementary work or servicing are trained as required by section 406.45 and qualified in accordance with the requirements of section 406.43 and Section 406.44;
- (u) a description of the procedure used to ensure that the empty weight and balance of an aircraft is recorded in accordance with the requirements of section 571.03 - Recording of Maintenance and Elementary Work or section 605.92 - Requirement to Keep Technical Records;
- (v) a description of technical dispatch procedures;
- (w) a description of defect recording, rectification and control procedures;
(amended 1998/09/01)
- (x) a description of service difficulty reporting procedures; and
- (y) a description of the evaluation program.

426.39 *Maintenance Arrangements*

The authorization for the performance of maintenance outside of Canada by a person or organization that does not hold an AMO certificate will be granted by issuance of a Maintenance Specification where the maintenance arrangement includes details of:

- (a) the relevant portions of the MCM that shall be provided to the person or organization;
- (b) the maintenance to be performed; and
- (c) the records to be kept by the person performing the maintenance.

426.41 *Defect Recording, Rectification and Control Procedures* (amended 1998/09/01)

(1) The defect recording system shall include a method to highlight defects that recur, so that they are readily identifiable by flight crews and the maintenance organization at all bases where the aircraft is operated.

(2) The defect control system shall ensure that the rectification of a defect identified as a recurring defect will take into account the methodology used in previous repair attempts.

(3) For the purpose of these standards, defects are recurring defects where a failure mode is repeated three times, on a particular aircraft, within 15 flight segments of a previous repair made in respect of that failure mode.

426.45 Training Program

(1) The training program required by section 406.45 of the CARs shall ensure that personnel trained are familiar with the regulations, standards, flight training unit procedures and human factors issues related to the work for which they are responsible.

(amended 2002/09/01)

(2) The training program shall include:

(amended 2002/09/01)

(a) initial training to ensure that persons performing elementary work or servicing are aware of the pertinent regulations, standards and flight training unit procedures associated with that work;

(amended 2002/09/01)

(b) update training to ensure that personnel remain competent and are made aware of any changes to the pertinent regulations, standards and flight training unit procedures;

(amended 2002/09/01)

(c) additional training where it is shown to be necessary by a finding made under the evaluation program maintained under section 406.47 of the CARs; and

(amended 2002/09/01)

(d) procedures to ensure staff are kept aware of maintenance safety related issues in general, by means of bulletin boards, information notices, company publications, verbal briefings, or by similar means.

(amended 2002/09/01)

(3) Human factors training shall include instruction in:

(amended 2002/09/01)

(a) human performance;

(amended 2002/09/01)

(b) factors influencing human error including:

(amended 2002/09/01)

(i) fatigue;

(ii) stress;

(iii) assertiveness;

(iv) awareness;

(v) resources;

(vi) knowledge;

(vii) teamwork;

(viii) norms (commonly accepted standards and procedures);

(ix) complacency;

- (x) pressure;
 - (xi) distraction; and
 - (xii) communication;
- (c) error management, including error prevention and error containment.
(amended 2002/09/01)

(4) The training on the regulations shall ensure, as a minimum, that personnel are aware of their responsibilities with regard to the performance rules of section 571.02 of the CARs, as well as the technical record requirements of section 571.03 and Division IV of Subpart 605 of the CARs.
(amended 2002/09/01)

(5) The training applicable to servicing may be limited to the procedures contained in the manufacturer's maintenance publications, servicing manuals, and similar documents. Where the standards used are not those specified by the manufacturer, they shall be listed in the MCM as required by section 406.38 of the CARs.
(amended 2002/09/01)

Information Notes:

(amended 2002/09/01)

(i) It is advisable that the flight training unit also incorporate any applicable training requirements stemming from other national or provincial codes, affecting the handling of fuels and other dangerous goods, etc.

(ii) For administrative reasons, a flight training unit can establish many company procedures related to maintenance. The intent of the training requirements under this section is to address only those company procedures established in respect of the Canadian Aviation Regulations. Where flight crew members are appropriately trained, they may, where applicable, perform procedures identified as (M) items in the MEL, so long as the work does not constitute maintenance within the meaning of subsection 101.01(1) of the CARs, e.g. there is no disassembly and subsequent re-assembly of components that would require a maintenance release.

(6) Until such time as it is revised through an assessment made in respect of the evaluation program, the initial cycle for update training shall not exceed three years.
(amended 2002/09/01)

(7) Where a flight training unit also holds an AMO certificate issued pursuant to section 573.02 of the CARs, the training required by section 406.45 of the CARs may be managed by means of its AMO training program provided that:
(amended 2002/09/01)

- (a) there is mention made to that effect in the MCM; and
- (b) all the requirements specified in this section are covered in its AMO manual approved pursuant to section 573.10 of the CARs.

426.46 Maintenance Personnel Records

A record of maintenance personnel for a flight training unit shall contain the following information:

- (a) all appointments, and personnel qualifications in respect of such appointments, made pursuant to paragraph 406.36(1)(a);
- (b) all authorizations to perform elementary work made pursuant to CAR 406.43; and
(amended 1998/09/01)
- (c) all training conducted pursuant to CAR 406.45.
(amended 1998/09/01)

426.47 Quality Assurance Program

(amended 2005/05/31)

Information Note:

The Quality Assurance Program (hereinafter the program) established under section 406.47 of the Canadian Aviation Regulations (CARs) is not intended to be based solely on a system of end product inspection, but rather upon periodic verifications of all aspects of the systems and practices used for the control of maintenance. The program should provide an unbiased picture of the flight training unit's performance, to verify that activities comply with the MCM and confirm that the systems and procedures, described in the MCM, remain effective.
(amended 2005/05/31)

(1) The program shall, as a minimum, cover all functions defined within the MCM and include all elements necessary to ensure effectiveness, quality and safety. It shall confirm that the flight training unit is in compliance with the applicable regulations and with the MCM by addressing operational and environmental conditions, organizational structure, record keeping systems, etc. and ensure that all referenced procedures remain applicable and effective.
(amended 2005/05/31)

(2) The audits referred to in paragraphs 406.47(3)(a) and (b) of the CARs may be conducted on a progressive or segmented basis, provided that the entire organization is audited within the applicable interval.
(amended 2005/05/31)

Information Note:

A proportion of random audits should be carried out while activities covered by the MCM and maintenance schedules are in progress, including work being performed at night time.
(amended 2005/05/31)

(3) Activities related to the program may be performed by employees of the FTU or by external agents. Persons may be assigned responsibility for other duties, in addition to those related to the program, provided that the program responsibilities take

precedence over all other responsibilities.
(amended 2005/05/31)

DIVISION V - FLIGHT TRAINING OPERATIONS

426.50 *Operational Control System* (amended 2006/12/14)

An operational control system shall include the following:
(amended 2006/12/14)

- (a) flight following procedures;
(amended 2006/12/14)
- (b) standards of training and qualifications for the individual performing flight following;
(amended 2006/12/14)
- (c) flight authorization and flight preparation procedures;
(amended 2006/12/14)
- (d) procedures to ensure that the pilot-in-command is advised, prior to dispatch, of any aeroplane defects that have been deferred;
(amended 2006/12/14)
- (e) dissemination procedures for operational information and acknowledgement;
(amended 2006/12/14)
- (f) fuel and oil requirements;
(amended 2006/12/14)
- (g) weight and balance system;
(amended 2006/12/14)
- (h) accident or incident reporting procedures;
(amended 2006/12/14)
- (i) procedures that will provide for the monitoring of a flight's progress and the notification of the flight training operator and search-and-rescue authorities if the flight is overdue or missing;
(amended 2006/12/14)
- (j) use of checklists;
(amended 2006/12/14)
- (k) maintenance discrepancy reporting and requirements of completion of flight;
(amended 2006/12/14)
- (l) current information on the location of the operator's aeroplanes maintained at the main base of operations, the sub-base or the satellite base, as appropriate;
(amended 2006/12/14)
- (m) each aeroplane shall be equipped with serviceable and functioning communications equipment that permits the pilot-in-command to communicate

with a ground radio station for the purpose of flight following;
(amended 2006/12/14)

(n) a person, qualified and knowledgeable in the operator's flight following procedures on duty or available when training flights are in progress;
(amended 2006/12/14)

(o) each training flight conducted as authorized and acknowledged in the daily flight record; and
(amended 2006/12/14)

(p) pilot-in-command responsibility for flight watch, supported by a flight training unit operator flight following system.
(amended 2006/12/14)

426.52 *Facilities at Base of Operations*

(1) Subject to subsection (2), a flight training unit that operates an aeroplane or helicopter shall have at a base of operations:

- (a) a means of communication with the nearest flight service station;
- (b) continuous use of instructional facilities consisting of adequate classrooms or other suitable spaces which can be used for ground school instruction and preparatory ground instruction, equipped with training aids appropriate to the authorized training;
- (c) continuous use of operational dispatch facilities including suitable spaces for:
 - (i) flight planning,
 - (ii) pre-flight briefing, and
 - (iii) post-flight debriefing of trainees.

(2) For a satellite base of operations, the facilities outlined in paragraph (1)(b) and (c) may be located within a reasonable distance of the satellite base.

426.56 *Daily Flight Record*

A daily flight record shall include the following information:

- (a) date;
- (b) aircraft registration;
- (c) pilot-in-command;
- (d) trainee;
- (e) exercise or lesson plan to be conducted;
- (f) flight instructor's authorization;
- (g) trainee's acknowledgement;
- (h) time up;
- (i) time down;

- (j) air time; and
- (k) flight time.

**426.61 Requirements for a Flight Training
Operations Manual**
(amended 2006/12/14)

(1) A flight training operations manual shall be such that:
(amended 2006/12/14)

(a) all parts of the manual are consistent and compatible in form and content;
(amended 2006/12/14)

(b) the manual can be readily amended;
(amended 2006/12/14)

(c) the manual contains an amendment control page and a list of the pages that are in effect; and
(amended 2006/12/14)

(d) the manual has the date of the last amendment to each page specified on that page.
(amended 2006/12/14)

(2) The flight training operations manual shall contain at least the following, as applicable to the operation:

(a) a preamble relating to use and authority of manual;
(amended 2006/12/14)

(b) a table of contents;
(amended 2006/12/14)

(c) amending procedures, an amendment record sheet, distribution list and list of effective pages;
(amended 2006/12/14)

(d) a copy of the Flight Training Unit Operator Certificate and operations specifications;
(amended 2006/12/14)

(e) a chart of the management organization;
(amended 2006/12/14)

(f) the qualifications, responsibilities and succession of command of management and operations personnel and persons authorized by the CFI;
(amended 2006/12/14)

(g) a description of the operational control system in accordance with section 426.50 of the *Canadian Aviation Regulations*;
(amended 2006/12/14)

- (h) a sample of a navigation log, weight and balance form and Instructor's Training Record While Under Direct Supervision form;
(amended 2006/12/14)
- (i) the minimum weather conditions required for dual and solo training flights during day, night, VFR and IFR operations including:
(amended 2006/12/14)
- (i) minimum ceiling and visibility for local and cross-country training flights;
 - (ii) maximum cross-wind for conducting a take-off and landing; and
 - (iii) minimum temperature for flight training operations;
- (j) minimum operating altitude for all cross-country training flights;
(amended 2006/12/14)
- (k) operations in hazardous conditions such as icing, thunderstorms, white out, windshear;
(amended 2006/12/14)
- (l) aeroplane performance limitations, such as operations from unprepared surfaces;
(amended 2006/12/14)
- (m) securing of cargo;
(amended 2006/12/14)
- (n) passenger briefing procedures;
(amended 2006/12/14)
- (o) use of aircraft flight manual, pilot operating handbook;
(amended 2006/12/14)
- (p) procedures unique to the operation of a seaplane, where applicable;
(amended 2006/12/14)
- (q) aeroplane ice, frost and snow critical surface contamination procedures;
(amended 2006/12/14)
- (r) procedures for carriage of dangerous goods;
(amended 2006/12/14)
- (s) fuelling procedures including:
(amended 2006/12/14)
- (i) fuel contamination precautions;
 - (ii) bonding requirements; and
 - (iii) fuelling with passengers on board;
- (t) list of emergency survival equipment carried on the aeroplane, how to use equipment and periodic inspection requirements;
(amended 2006/12/14)
- (u) emergency procedures for:
(amended 2006/12/14)

- (i) emergency locator transmitter;
- (ii) passenger preparation for emergency landing/ditching;
- (iii) emergency evacuation; and
- (iv) ground emergency coordination procedures;
- (v) staff training programs including copy of company training and qualification record forms;
(amended 2006/12/14)
- (w) quality assurance program;
(amended 2006/12/14)
- (x) the system to be used for the supervision of all flight and ground instructors and, if applicable, dispatchers at the flight training unit, including company indoctrination training, review of the flight training operations manual, and flight planning, dispatch, and operating procedures; and
(amended 2006/12/14)
- (y) the system to be used for the direct supervision of Class 4 flight instructors, including the designation of a Class 1 or a Class 2 flight instructor to supervise a Class 4 flight instructor.
(amended 2006/12/14)

426.62 Training Manual

(amended 2006/12/14)

(1) A training manual shall be such that:
(amended 2006/12/14)

- (a) all parts of the manual are consistent and compatible in form and content;
(amended 2006/12/14)
- (b) the manual can be readily amended;
(amended 2006/12/14)
- (c) the manual contains an amendment control page and a list of the pages that are in effect; and
(amended 2006/12/14)
- (d) the manual has the date of the last amendment to each page specified on that page.
(amended 2006/12/14)

(2) The training manual shall contain at least the following, as applicable to the operation:
(amended 2006/12/14)

- (a) the training plan;
(amended 2006/12/14)
- (b) the flight training syllabus;
(amended 2006/12/14)

(c) synthetic flight training syllabus; and
(amended 2006/12/14)

(d) the ground school instruction training syllabus.
(amended 2006/12/14)

(3) The Training Plan shall contain at least the following:
(amended 2006/12/14)

(a) the aim of the course in the form of a statement of what the trainee is expected to obtain as a result of the training, the level of performance, and the training constraints to be observed;
(amended 2006/12/14)

(b) pre-entry requirements, including
(amended 2006/12/14)

- (i) medical requirements,
- (ii) minimum age,
- (iii) level of education, and
- (iv) linguistic requirements;

(c) credits for previous experience, including recreational pilot permit and private pilot licence;
(amended 2006/12/14)

(d) the general arrangements of the daily and weekly programs for flying, ground, and synthetic flight training, including bad weather programs;
(amended 2006/12/14)

(e) course policies in terms of
(amended 2006/12/14)

- (i) maximum student training times,
- (ii) restrictions in respect of training periods for trainees,
- (iii) duration of dual and solo flights at various stages,
- (iv) maximum trainee flying hours in any day or night period,
- (v) maximum number of student training flights in any day or night period, and
- (vi) minimum rest periods between training periods;

(f) policy for
(amended 2006/12/14)

- (i) attendance records,
- (ii) the form of training records to be kept,
- (iii) persons responsible for checking records and students' personal logs,
- (iv) the nature and frequency of record checks,
- (v) standardization of entries in training records,

- (vi) personal log entries, and
 - (vii) security of records and documents;
- (g) policy for the conduct of flying progress checks, stage tests and experience, and for ground school progress tests, internal and external examinations, including (amended 2006/12/14)
- (i) procedures for authorization for a test,
 - (ii) rules concerning refresher training before retest,
 - (iii) test reports and records,
 - (iv) procedures for examination preparation, type of question and assessment, and standard required for a pass,
 - (v) procedure for question analysis and review and issuing replacement examinations, and
 - (vi) examination re-write procedures; and
- (h) policy regarding training effectiveness, including (amended 2006/12/14)
- (i) individual trainee responsibilities,
 - (ii) identification of unsatisfactory progress,
 - (iii) actions to correct unsatisfactory progress,
 - (iv) procedure for changing instructors,
 - (v) maximum number of instructor changes per trainee,
 - (vi) the internal feedback system for detecting training deficiencies,
 - (vii) procedures for suspending a trainee from training, for discipline, and
 - (viii) requirements for reporting and documentation.
- (4) The flight training syllabus shall contain at least the following: (amended 2006/12/14)
- (a) a detailed statement of all the dual and solo flight lessons to be taught, arranged in the sequence to be flown with main and sub-titles; (amended 2006/12/14)
 - (b) a flight lesson reference list in the form of an abbreviated list of the lessons in paragraph (4)(a), giving only main and sub-titles for quick reference, and including flight time for each lesson; (amended 2006/12/14)
 - (c) a statement of how the flight training program will be divided into phases, indicating how the flight lessons will be arranged to ensure completion in the most suitable learning sequence and that essential or emergency exercises are repeated at the proper frequency; (amended 2006/12/14)

(d) the syllabus hours for each phase and for groups of lessons within each phase including when progress tests are to be conducted;

(amended 2006/12/14)

(e) the requirement for trainee progress, including a brief but specific statement of what trainees are expected to be able to do and the standard of proficiency they must achieve before progressing from one phase of training to the next, including minimum experience requirements in terms of hours and satisfactory exercise completion before undertaking significant lessons, such as night flying;

(amended 2006/12/14)

(f) the Flight Training Unit requirements for instructional methods, particularly with respect to preparatory ground school instruction, pre-flight briefings, post-flight debriefings, adherence to syllabi and training specifications, and authorization of solo flights;

(amended 2006/12/14)

(g) instructions given to flight instructors in respect of the conduct and documentation of all progress checks and stage tests; and

(amended 2006/12/14)

(h) copies of forms used for progress checks and stage tests.

(amended 2006/12/14)

(5) The syllabus for synthetic flight training shall be structured as set out in subsection (4).

(amended 2006/12/14)

(6) The syllabus for ground school instruction shall be structured as set out in subsection (4), but with a training specification and objectives for each subject. Individual lesson plans shall refer to specific training aids available for use.

(amended 2006/12/14)

426.63 *Contents of Certificate of Enrolment*

(amended 2006/12/14)

The certificate of enrolment provided to each trainee at the time of commencing an integrated course of pilot training shall include the following:

(amended 2006/12/14)

(a) the name of the flight training unit;

(amended 2006/12/14)

(b) the name of the trainee to whom it was issued:

(amended 2006/12/14)

(c) the date of enrolment; and

(amended 2006/12/14)

(d) the name of the course of training for which it was issued.

(amended 2006/12/14)

426.64 *Contents of Course Completion Certificate*

(amended 2006/12/14)

The course completion certificate shall contain at least the following:
(amended 2006/12/14)

(a) the name of the flight training unit and the flight training unit operator certificate number of the school;

(amended 2006/12/14)

(b) the name and Transport Canada file number of the graduate to whom it was issued;

(amended 2006/12/14)

(c) the course for which it was issued;

(amended 2006/12/14)

(d) the date of course completion;

(amended 2006/12/14)

(e) a written statement that the trainee has successfully completed each required stage of the approved course including the tests for those stages; and

(amended 2006/12/14)

(f) the signature of the Chief Flight Instructor certifying the statement in paragraph 426.64(e) of the *Canadian Aviation Regulations*.

(amended 2006/12/14)

DIVISION VIII - INTEGRATED COURSE

(amended 2006/12/14)

426.75 *Requirements*

(amended 2006/12/14)

Commercial Pilot Licence — Aeroplane (CPL(A)) Integrated Course
(amended 2006/12/14)

Note: The aim of the Commercial Pilot Licence — Aeroplane (CPL(A)) integrated course is to train pilots to the level of proficiency necessary for the issuance of a Commercial Pilot Licence—Aeroplane, and any further aerial work training the operator may offer, excluding flight instructor training and instrument rating instruction.

(amended 2006/12/14)

(1) Each Commercial Pilot Licence — Aeroplane (CPL(A)) integrated course shall last for between 9 and 24 months from the date of enrolment and include at least the following:

(amended 2006/12/14)

(a) clear phases of training ;

(amended 2006/12/14)

(b) 300 hours of ground school instruction, of which a minimum of 50% shall be classroom based, in the subjects listed in subsection 421.30(3) of the *Canadian Aviation Regulations*;
(amended 2006/12/14)

Notes: (1) An acceptable means of compliance would be phases leading to the following events: first solo flight, first solo cross-country flight, VFR navigation progress test, and commercial pilot licence flight test.
(amended 2006/12/14)

(2) *Specific guidance on the subjects is given in TP12881E, Study and Reference Guide, Commercial Pilot Licence- Aeroplane.*
(amended 2006/12/14)

(c) successful completion of the knowledge requirements for the Private Pilot Licence—Aeroplane and the Commercial Pilot Licence—Aeroplane;
(amended 2006/12/14)

(d) 150 hours flight time of which up to 10 hours may be instrument ground time, consisting of at least:
(amended 2006/12/14)

(i) 80 hours of dual instruction flight time conducted by the holder of a flight instructor rating, of which up to 10 hours may be instrument ground time;

(ii) 70 hours pilot-in-command flight time supervised by the holder of a flight instructor rating;

(iii) 30 hours cross-country flight time as pilot-in-command, including a VFR cross-country flight to a point of a minimum of 300 nautical mile radius from the point of departure and including 3 landings at points other than that of departure;

(iv) 10 hours of night flight time including a minimum of 5 hours dual instruction flight time, including 2 hours of cross-country flight time and 5 hours solo flight time, including 10 take-offs, circuits and landings;

(v) 20 hours of dual instruction instrument flight time of which a maximum 10 hours may be conducted on an approved aeroplane simulator or flight training device; and

(vi) 5 hours flight time on complex or technically advanced aeroplanes; and

Note: A technically advanced aeroplane means an aeroplane that combines most or all of the following design features: advanced cockpit automation system (glass cockpit), GPS with moving map, automated engine and systems management, and integrated autoflight/autopilot systems for IFR/VFR flight operations.
(amended 2006/12/14)

(e) successful completion of the flight tests for the Private Pilot Licence — Aeroplane and the Commercial Pilot Licence — Aeroplane.
(amended 2006/12/14)

(2) An applicant may be admitted to training either directly without previous experience or as the holder of a Private Pilot Licence — Aeroplane or a Pilot Permit

— Recreational — Aeroplane in accordance with the following:
(amended 2006/12/14)

(a) In the case of a Private Pilot Licence — Aeroplane applicant, the hours flown by the applicant prior to the course may be credited towards the course flight time requirement up to a credit of a maximum of 30 hours flying experience, of which 20 hours may be dual instruction flight time;

(amended 2006/12/14)

(b) In the case of a Pilot Permit — Recreational — Aeroplane applicant, the hours flown by the applicant prior to the course may be credited towards the course flight time requirement up to a credit of a maximum of 15 hours flying experience, of which 10 hours may be dual instruction flight time.

(amended 2006/12/14)

Commercial Pilot Licence—Aeroplane/ Instrument Rating (CPL(A)/IR)

Integrated Course

(amended 2006/12/14)

Note: The aim of the Commercial Pilot Licence — Aeroplane/Instrument Rating (CPL(A)/IR) integrated course is to train pilots to the level of proficiency necessary for the issuance of a Commercial Pilot Licence— Aeroplane, and to obtain a multi-engine class rating and Group 1 instrument rating and any further aerial work training the operator may offer, excluding flight instructor training, to operate single pilot multi-engine aeroplanes in commercial air services.

(amended 2006/12/14)

(3) Each Commercial Pilot Licence — Aeroplane/Instrument Rating (CPL(A)/IR) integrated course shall last for between 9 and 36 months from the date of enrolment and include at least the following:

(amended 2006/12/14)

(a) clear phases of training;

(amended 2006/12/14)

(b) 400 hours of ground school instruction, of which a minimum of 50% shall be classroom based, in the subjects listed in subsection 421.30(3) and paragraph 421.46(2)(a) of the *Canadian Aviation Regulations* and the subjects related to multi-engine IFR operations;

(amended 2006/12/14)

Notes: (1) An acceptable means of compliance would be phases leading to the following events: first solo flight, first solo cross-country flight, VFR navigation progress test, commercial pilot licence flight test and Group 1 instrument rating flight test.

(amended 2006/12/14)

(2) Specific guidance on the subjects is given in TP 12881E, Study and Reference Guide, Commercial Pilot Licence - Aeroplane; TP 691E, Study and Reference Guide, Instrument Rating; the definitions, common terms, and ground school instruction subjects listed in TP11575E, Instructor Guide, Multi-Engine Class Rating; and the

background knowledge listed in TP 12878E , Instructor Guide - GPS.
(amended 2006/12/14)

(c) successful completion of the knowledge requirements for the Private Pilot Licence — Aeroplane, the Commercial Pilot Licence — Aeroplane and the instrument rating;

(amended 2006/12/14)

(d) 190 hours flight time, including all flight tests, of which up to 40 hours may be instrument ground time consisting of at least:

(amended 2006/12/14)

(i) 100 hours of dual instruction flight time conducted by the holder of a flight instructor rating, of which up to 40 hours may be instrument ground time;

(ii) 90 hours pilot-in-command flight time supervised by the holder of a flight instructor rating;

(iii) 50 hours cross-country flight time as pilot-in-command, including a VFR cross-country flight to a point of a minimum of 300 nautical mile radius from the point of departure and including 3 landings at points other than that of departure;

(iv) 10 hours of night flight time including a minimum of 5 hours dual instruction flight time, including 2 hours of cross-country flight time and 5 hours solo flight time, including 10 take-offs, circuits and landings;

(v) 60 hours of instrument flight time, of which up to 30 hours may be instrument ground time, or up to 40 hours if the training is conducted in a simulator or flight training device that can be used for an instrument rating renewal flight test, including

(A) 40 hours of dual instruction instrument flight time conducted by the holder of a flight instructor rating; and

(B) one dual cross-country flight under simulated or actual IMC conditions of a minimum of 100 nautical miles, the flight to be conducted in accordance with an IFR flight plan to include, at two different locations, an instrument approach to minima; and

(vi) 5 hours flight time on complex or technically advanced aeroplanes.

Note: A technically advanced aeroplane means an aeroplane that combines most or all of the following design features: advanced cockpit automation system (glass cockpit), GPS with moving map, automated engine and systems management, and integrated autoflight/autopilot systems for IFR/VFR flight operations.

(amended 2006/12/14)

(e) successful completion of the flight tests for the Private Pilot Licence — Aeroplane, the Commercial Pilot Licence — Aeroplane, the multi-engine class rating and the Group 1 Instrument Rating.

(amended 2006/12/14)

(4) An applicant may be admitted to training either directly without previous experience or as the holder of a Private Pilot Licence — Aeroplane or a Pilot Permit

— Recreational — Aeroplane in accordance with the following:
(amended 2006/12/14)

(a) In the case of a Private Pilot Licence — Aeroplane applicant, the hours flown by the applicant prior to the course may be credited towards the course flight time requirement up to a credit of a maximum of 30 hours flying experience, of which 20 hours may be dual instruction flight time.

(amended 2006/12/14)

(b) In the case of a Pilot Permit — Recreational — Aeroplane applicant, the hours flown by the applicant prior to the course may be credited towards the course flight time requirement up to a credit of a maximum of 15 hours flying experience, of which 10 hours may be dual instruction flight time.

(amended 2006/12/14)

Airline Transport Pilot Licence — ATP(A) Integrated Course

(amended 2006/12/14)

Note: The aim of the Airline Transport Pilot (ATP(A)) integrated course is to train pilots to the level of proficiency necessary to enable them to operate as co-pilot on multi-crew, multi-engine aeroplanes in commercial air transportation and to obtain the commercial pilot licence — aeroplane, the multi-engine class rating and the Group 1 instrument rating (CPL(A)/IR).

(amended 2006/12/14)

(5) Each Airline Transport Pilot (ATP(A)) integrated course shall last for between 12 and 36 months from the date of enrolment and include at least the following:

(amended 2006/12/14)

(a) clear phases of training;

(amended 2006/12/14)

(b) 750 hours of ground school instruction, of which a minimum of 500 hours shall be classroom based, in the subjects required for the CPL(A)/IR course and the subjects listed in subsection 421.34(3) of the *Canadian Aviation Regulations*;

(amended 2006/12/14)

Notes: (1) An acceptable means of compliance would be phases leading to the following events: first solo flight, first solo cross-country flight, VFR navigation progress test, commercial pilot licence flight test, multi-engine flight test, Group 1 instrument rating flight test, and multi-crew cooperation training completion.

(amended 2006/12/14)

(2) *Specific guidance on the ATP subjects is given in TP 690E, Study and Reference Guide, Airline Transport Pilot Licence, Aeroplane.*

(amended 2006/12/14)

(c) successful completion of the knowledge requirements for the Private Pilot Licence — Aeroplane, the Commercial Pilot Licence — Aeroplane and the instrument rating;

(amended 2006/12/14)

(d) 205 hours flight time, including all flight tests, of which up to 55 hours may be instrument ground time consisting of at least:

(amended 2006/12/14)

(i) 105 hours of dual instruction flight time conducted by the holder of a flight instructor rating, of which up to 55 hours may be instrument ground time;

(ii) 100 hours pilot-in-command flight time supervised by the holder of a flight instructor rating;

(iii) 50 hours cross-country flight time as pilot-in-command, including a VFR cross-country flight to a point of a minimum of 300 nautical mile radius from the point of departure and including 3 landings at points other than that of departure;

(iv) 10 hours of night flight time including a minimum of 5 hours dual instruction flight time, including 2 hours of cross-country flight time and 5 hours solo flight time, including 10 take-offs, circuits and landings;

(v) 75 hours of instrument flight time, of which up to 30 hours may be instrument ground time, or up to 55 hours if the training is conducted in a simulator or flight training device that can be used for an instrument rating renewal flight test, including:

(A) 60 hours of instrument flight time as in subparagraph (3)(d)(v); and

(B) 15 hours multi-crew cooperation (MCC) training, for which either a multi-engine aeroplane required to be operated with a co-pilot or a flight simulator or flight training device suitable for multi-crew training may be used; and

(e) successful completion of the flight tests for the Private Pilot Licence — Aeroplane, the Commercial Pilot Licence — Aeroplane, the multi-engine class rating and the Group 1 Instrument Rating.

(amended 2006/12/14)

(6) An applicant may be admitted to training either directly without previous experience or as the holder of a Private Pilot Licence — Aeroplane.

(amended 2006/12/14)

(7) An applicant admitted to training under (2) may be credited towards the course flight time requirement up to a credit of a maximum of 30 hours flying experience, of which 20 hours may be dual instruction flight time.

(amended 2006/12/14)

426.76 *Equivalency*

(amended 2006/12/14)

The equivalent to a secondary school diploma shall be an equivalency acceptable to a province or territory.

(amended 2006/12/14)

Note: A common system for establishing equivalency is the General Educational Development Testing Service.

(amended 2006/12/14)



Transport
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CARs

CANADIAN AVIATION REGULATIONS

PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 428 – CONDUCT OF FLIGHT TESTS

Canada

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NOTE

All amendments to the CARs will be indicated by the Coming into Force date, immediately following the amended text.

RECORD OF AMENDMENTS

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STANDARD 428 - CONDUCT OF FLIGHT TESTS

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PART IV - PERSONNEL LICENSING AND TRAINING

STANDARD 428 — CONDUCT OF FLIGHT TESTS

(amended 2012/02/19)

Foreword

The *Personnel Licensing and Training Standards, respecting the Conduct of Flight Tests*, consist of the following Schedules:

Schedule 1 — Flight Test for the Issuance of a Passenger Carrying Rating – Ultra-light Aeroplane

Schedule 2 — Flight Test for the Issuance of a Recreational Pilot Permit – Aeroplane

Schedule 3 — Flight Test for the Issuance of a Private Pilot Licence – Aeroplane

Schedule 4 — Flight Test for the Issuance of a Commercial Pilot Licence – Aeroplane

Schedule 5 — Flight Test for the Issuance of a Private Pilot Licence – Helicopter

Schedule 6 — Flight Test for the Issuance of a Commercial Pilot Licence – Helicopter

Schedule 7 — Flight Test for the Issuance of a Multi-Engine Class Rating - Aeroplane

Schedule 8 — Flight Test for the Issuance or Renewal of an Instrument Rating

Schedule 9 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 4 - Aeroplane

Schedule 10 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 3 - Aeroplane

Schedule 11 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 2 - Aeroplane

Schedule 12 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 1 - Aeroplane

Schedule 13 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 4 - Helicopter

Schedule 14 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating – Class 3 - Helicopter

Schedule 15 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating –
Class 2 - Helicopter

Schedule 16 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating –
Class 1 - Helicopter

Schedule 17 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating –
Class 2 – Aeroplane - Aerobatic

Schedule 18 — Flight Test for the Issuance or Renewal of a Flight Instructor Rating –
Class 1 – Aeroplane - Aerobatic

SCHEDULE 1
FLIGHT TEST FOR THE ISSUANCE OF A
PASSENGER CARRYING RATING -
ULTRA-LIGHT AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

(i) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,

(ii) a Student Pilot Permit - Ultra-light Aeroplane, a pilot permit or a licence, and

(iii) a letter signed by the holder of a Flight Instructor Rating - Ultra-light Aeroplane, or a Flight Instructor Rating – Aeroplane, dated within 30 days prior to the flight test, certifying that:

(A) a pre-flight test evaluation was conducted with the candidate,

(B) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Passenger-Carrying Rating – Ultra-light Aeroplane, and

(C) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

(i) a copy of the Flight Test Report for the previously failed flight test, and

(ii) a letter signed by the holder of a Flight Instructor Rating - Ultra-light Aeroplane, or a Flight Instructor Rating - Aeroplane, dated within 60 days prior to the re-test, certifying that:

(A) the candidate has received further training on the failed exercise(s),

(B) the candidate is considered to be competent to successfully complete the flight test, and

(C) the instructor recommends the candidate for the re-test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide an aeroplane that:

(a) is one of the following:

- (i) an ultra-light aeroplane (two or three axis control, weight shift control or powered parachute aircraft),
- (ii) an amateur-built aeroplane that meets the definition of a basic ultra-light aeroplane, or
- (iii) a certified aeroplane that meets the definition of a basic ultra-light aeroplane;

(b) is adequately equipped to permit the candidate to conduct the manoeuvres required for the flight test and to permit the examiner to assess the candidate's performance; and

(c) meets the requirements of subsections 425.23(1) and (2) of Standard 425 — *Flight Training*.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

(a) require the candidate to fly the aeroplane from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;

(b) take no part in the operation of the aeroplane, except:

- (i) as required for the purpose of testing certain prescribed exercises, or
- (ii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and

(c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

(a) The examiner shall evaluate the candidate's knowledge and skills to:

- (i) perform the required exercises in accordance with the performance criteria prescribed for the Passenger Carrying Rating - Ultra-light Aeroplane,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) demonstrate sound judgement and good airmanship,
- (iv) correctly apply aeronautical knowledge, and
- (v) demonstrate mastery of the aircraft at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.

(c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane used, the following general performance tolerances apply:

Altitude	Normal flight	±100 feet
	Pilot navigation	±200 feet
Airspeed	All flight regimes	-0 to +10 mph

5. Content of the Flight Test for the Issuance of a Passenger Carrying Rating - Ultra-light Aeroplane

	Section 1 - Pre-Flight Operations
a	Aircraft Familiarization
b	Preparation for Flight
c	Ancillary Controls
d	Taxiing (and Canopy Inflation for Powered Parachutes)

	Section 2 - Airwork
a	Take-off
b	Stall

	Section 3 - Navigation
a	Pilot Navigation

	Section 4 - Abnormal and Emergency Procedures
a	Precautionary Landing
b	Forced Landing
c	Overshoot
d	Emergency Procedures

	Section 5 - Arrival and Landing
a	The Circuit
b	Approach and Landing
c	Slipping (not an item for two axis control, powered parachutes or weight shift control)

SCHEDULE 2
FLIGHT TEST FOR THE ISSUANCE OF A
RECREATIONAL PILOT PERMIT -
AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

- (i) proof that the candidate meets the requirements of section 421.14 Standard 421 — *Flight Crew Permits, Licences and Ratings*,
- (ii) evidence that the candidate has received instruction on the same type of aeroplane to be used for the flight test, and
- (iii) a letter signed by the holder of a Flight Instructor Rating – Aeroplane, dated within 30 days prior to the flight test, certifying that:
 - (A) a pre-flight test evaluation was conducted with the candidate,
 - (B) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Recreational Pilot Permit - Aeroplane, and
 - (C) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by the holder of a Flight Instructor Rating - Aeroplane, dated within 30 days prior to the re-test, certifying that:
 - (A) the candidate has received further training on the failed exercise(s),
 - (B) the candidate is considered to be competent to successfully complete the flight test, and
 - (C) the instructor recommends the candidate for the re-test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) an aeroplane that:

- (i) is certified for all manoeuvres required for the flight test, and
- (ii) meets the requirements of subsections 425.23(1) and (2) of Standard 425 — *Flight Training*; and

(b) appropriate current aeronautical charts and the current *Canada Flight Supplement*.

Information Note:

For the purposes of the requirement of paragraph (a), the candidate may use an aeroplane for which a Special Certificate of Airworthiness has been issued and which is owner maintained.

3. Conduct of the Flight Test

When conducting a flight test the examiner shall:

(a) require the candidate to fly the aeroplane from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;

(b) take no part in the operation of the aeroplane except:

(i) as required for the purpose of testing certain prescribed exercises, or

(ii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and

(c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

(a) The examiner shall evaluate the candidate's knowledge and skills to:

(i) perform the required exercises in accordance with the performance criteria prescribed for the Recreational Pilot Permit – Aeroplane,

(ii) complete all manoeuvres with smoothness and accuracy,

(iii) demonstrate sound judgement and good airmanship,

(iv) correctly apply aeronautical knowledge, and

(v) demonstrate mastery of the aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.

(c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane used, the following general performance tolerances apply:

Altitude	Normal Flight	±100 feet
	Pilot navigation	±200 feet
Heading	Normal Flight	±10°
Airspeed	All flight regimes	±10 knots

5. Content of the Flight Test for the Issuance of a Recreational Pilot Permit – Aeroplane

	Section 1 - Pre-Flight Operations
a	Aeroplane Familiarization and Preparation for Flight
b	Ancillary Controls
c	Taxiing

	Section 2 - Airwork
a	Take-off
b	Slow Flight
c	Stall
d	Spiral

	Section 3 - Navigation
a	Pilot Navigation

	Section 4 - Abnormal and Emergency Procedures
a	Precautionary Landing
b	Forced Landing
c	Overshoot
d	Emergency Procedures

	Section 5 - Arrival and Landing
a	The Circuit
b	Approach and Landing
c	Slipping

SCHEDULE 3
FLIGHT TEST FOR THE ISSUANCE OF A
PRIVATE PILOT LICENCE - AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

(i) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,

(ii) evidence that the candidate has received instruction on the same type of aeroplane to be used for the flight test, and

(iii) a letter signed by the holder of a Flight Instructor Rating – Aeroplane, dated within 30 days prior to the flight test, certifying that:

(A) a pre-flight test evaluation was conducted with the candidate,

(B) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Private Pilot Licence, and

(C) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

(i) a copy of the Flight Test Report for the previously failed flight test, and

(ii) a letter signed by the holder of a Flight Instructor Rating - Aeroplane, dated within 30 days prior to the re-test, certifying that:

(A) the candidate has received further training on the failed exercise(s),

(B) the candidate is considered to be competent to successfully complete the flight test, and

(C) the instructor recommends the candidate for the re-test.

2. Aircraft and Equipment Required for the Flight Test

The examiner shall ensure that the candidate provides:

(a) an aeroplane that:

(i) is certified for all manoeuvres required for the flight test, and

(ii) meets the requirements of subsections 425.23(1), (2) and (3) of Standard 425 — *Flight Training*;

(b) appropriate current aeronautical charts and the current *Canada Flight Supplement*; and

- (c) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

Information Note:

For the purposes of the requirement of paragraph (a), the candidate may use an aeroplane for which a Special Certificate of Airworthiness has been issued and which is owner maintained.

3. Conduct of the Flight Test

When conducting a flight test the examiner shall:

- (a) require the candidate to fly the aeroplane from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;
- (b) take no part in the operation of the aeroplane except:
- (i) as required for the purpose of testing certain prescribed exercises,
 - (ii) to perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device, or
 - (iii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and
- (c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

- (a) The examiner shall evaluate the candidate's knowledge and skills to:
- (i) perform the required exercises in accordance with the performance criteria prescribed for the Private Pilot Licence – Aeroplane,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) demonstrate sound judgement and good airmanship,
 - (iv) correctly apply aeronautical knowledge, and
 - (v) demonstrate mastery of the aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.
- (c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane used, the following general performance tolerances apply:

Altitude	Normal flight	±100 feet
	Cross-country cruising flight	±200 feet
	Instrument flight	±200 feet
Heading	Normal flight	±10°
	Instrument flight	±15°
Airspeed	Take-off and approach	+10/-5 knots
	Other visual flight regimes	±10 knots
	Instrument flight	±15 knots

5. Content of the Flight Test for the Issuance of a Private Pilot Licence – Aeroplane

	Section 1 - Pre-Flight Operations
a	Aeroplane Familiarization and Preparation for Flight
b	Ancillary Controls
c	Taxiing
d	Radio Communication

	Section 2 - Airwork
a	Take-off
b	Turns
c	Slow Flight
d	Stall
e	Spiral Dive
f	Instrument Flying

	Section 3 - Navigation
a	Pilot Navigation

	Section 4 - Abnormal and Emergency Procedures
a	Precautionary Landing
b	Forced Landing
c	Overshoot
d	Emergency Procedures

	Section 5 - Arrival and Landing
a	The Circuit
b	Approach and Landing
c	Slipping

SCHEDULE 4
FLIGHT TEST FOR THE ISSUANCE OF A
COMMERCIAL PILOT LICENCE -
AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

- (i) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,
- (ii) evidence that the candidate has received instruction on the same type of aeroplane to be used for the flight test, and
- (iii) a letter signed by the holder of a Flight Instructor Rating – Aeroplane, dated within 30 days prior to the flight test, certifying that:
 - (A) a pre-flight test evaluation was conducted with the candidate,
 - (B) the candidate has successfully completed the required written examination and has an acceptable level of knowledge of the subject area(s) in which a deficiency was indicated by the *Written Examination Results and Feedback Report*,
 - (C) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Commercial Pilot Licence - Aeroplane, and
 - (D) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by the holder of a Flight Instructor Rating - Aeroplane, dated within 30 days prior to the re-test, certifying that:
 - (A) the candidate has received further training on the failed exercise(s),
 - (B) the candidate is considered to be competent to successfully complete the flight test, and
 - (C) the instructor recommends the candidate for the re-test.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

(i) an aeroplane that:

(A) is certified for all manoeuvres required for the flight test, and

(B) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*,

(ii) appropriate current aeronautical charts and the current *Canada Flight Supplement*, and

(iii) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

Information Note:

For the purposes of the requirements of subparagraph (i), the candidate may use an aeroplane for which a Special Certificate of Airworthiness has been issued and which is owner maintained.

(b) Subject to subparagraph (1)(a)(ii), more than one aeroplane may be provided to satisfy the requirements of the flight test.

(c) Certain manoeuvres required for the flight test may be conducted in a full-flight simulator or an appropriately equipped flight training device for which a certificate has been issued in accordance with section 606.03 *Synthetic Flight Training Equipment* of the *Canadian Aviation Regulations*.

3. Conduct of the Flight Test

When conducting a flight test the examiner shall:

(a) require the candidate to fly the aeroplane from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;

(b) take no part in the operation of the aeroplane except:

(i) as required for the purpose of testing certain prescribed exercises,

(ii) to perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device, or

(iii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and

(c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

(a) The examiner shall evaluate the candidate's knowledge and skills to:

- (i) perform the required exercises in accordance with the performance criteria prescribed for the Commercial Pilot Licence – Aeroplane,
- (ii) complete all manoeuvres with smoothness and accuracy,
- (iii) demonstrate sound judgement and good airmanship,
- (iv) correctly apply aeronautical knowledge, and
- (v) demonstrate mastery of the aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.

(c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane used, the following general performance tolerances apply:

Altitude	Normal flight	±100 feet
	Cross-country cruising flight	±100 feet
	Instrument flight	±100 feet
Heading	Normal flight	±10°
	Instrument flight (full panel)	±10°
	Instrument flight (partial panel)	±15°
Airspeed	Take-off and approach	+10/-5 knots
	Other visual flight regimes	±10 knots
	Instrument flight	±10 knots

5. Content of the Flight Test for the Issuance of a Commercial Pilot Licence – Aeroplane

	Section 1 - Pre-Flight Operations
a	Aeroplane Familiarization and Preparation for Flight
b	Ancillary Controls
c	Taxiing
d	Radio Communication

	Section 2 – Airwork
a	Take-off
b	Turns
c	Slow Flight
d	Stall
e	Spinning
f	Instrument Flying

	Section 3 – Navigation
a	Pilot Navigation
b	Radio Navigation

	Section 4 - Abnormal and Emergency Procedures
a	Precautionary Landing
b	Forced Landing
c	Overshoot
d	Emergency Procedures

	Section 5 - Arrival and Landing
a	The Circuit
b	Approaches and Landings
c	Slipping

SCHEDULE 5
FLIGHT TEST FOR THE ISSUANCE OF A
PRIVATE PILOT LICENCE - HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

- (i) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,
- (ii) evidence that the candidate has received instruction on the same type of helicopter to be used for the flight test, and
- (iii) a letter signed by the holder of a Flight Instructor Rating – Helicopter, dated within 30 days prior to the flight test, certifying that:
 - (A) a pre-flight test evaluation was conducted with the candidate,
 - (B) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Private Pilot Licence, and
 - (C) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by the holder of a Flight Instructor Rating - Helicopter, dated within 30 days prior to the re-test, certifying that:
 - (A) the candidate has received further training on the failed exercise(s),
 - (B) the candidate is considered to be competent to successfully complete the flight test, and
 - (C) the instructor recommends the candidate for the re-test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) a helicopter that:

- (i) is certified for all manoeuvres required for the flight test, including full-on autorotations, and has no operating limitations which prohibit the performance of those manoeuvres,

- (ii) meets the requirements of subsections 425.23(1), (2) and (3) of Standard 425 — *Flight Training*, and
- (iii) is equipped with suitable radio and two-way intercom voice communication;
- (b) appropriate current aeronautical charts and the current *Canada Flight Supplement*; and
- (c) an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner.

3. Conduct of the Flight Test

When conducting a flight test the examiner shall:

- (a) require the candidate to fly the helicopter from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;
- (b) take no part in the operation of the helicopter except:
 - (i) as required for the purpose of testing certain prescribed exercises,
 - (ii) to perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device, and
 - (iii) where intervention is necessary in the interests of safety or to avoid unacceptable delay to other traffic; and
- (c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

- (a) The examiner shall evaluate the candidate's knowledge and skills to:
 - (i) perform the required exercises in accordance with the performance criteria prescribed for the Private Pilot Licence – Helicopter,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) demonstrate sound judgement and good airmanship,
 - (iv) correctly apply aeronautical knowledge, and
 - (v) demonstrate mastery of the helicopter at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.
- (c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the helicopter used, the following general performance tolerances apply:

Altitude	Cross-country cruising flight	±200 feet
	Instrument flight	±200 feet
Heading	Instrument flight	±20°
Airspeed	Instrument flight	±20 knots
Angle of Bank	Instrument flight	not to exceed 30°

5. Content of the Flight Test for the Issuance of a Private Pilot Licence - Helicopter

	Section 1 - Pre-Flight Operations
a	Helicopter Familiarization and Preparation for Flight
b	Ancillary Controls/Start-up/Run-up/Shutdown
c	Radio Communication

	Section 2 - Hovering
a	Take-off and Landing
b	Hover Exercise

	Section 3 - Airwork
a	Transitions
b	The Circuit
c	Instrument Flying

	Section 4 - Navigation
a	Pilot Navigation
b	Minimum Safe Altitude Operations

	Section 5 - Confined Areas
a	Reconnaissance
b	Approach/Departure
c	Manoeuvring

	Section 6 - Abnormal and Emergency Procedures
a	Autorotation
b	Engine Failure at the Hover and Hover-taxi
c	Simulated Emergency Procedures

SCHEDULE 6
FLIGHT TEST FOR THE ISSUANCE OF A
COMMERCIAL PILOT LICENCE -
HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

- (i) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,
- (ii) evidence that the candidate has received instruction on the same type of helicopter to be used for the flight test, and
- (iii) a letter signed by the holder of a Flight Instructor Rating – Helicopter, dated within 30 days prior to the flight test, certifying that:
 - (A) a pre-flight test evaluation was conducted with the candidate,
 - (B) the candidate has successfully completed the required written examination and has an acceptable level of knowledge of the subject area(s) in which a deficiency was indicated by the *Written Examination Results and Feedback Report*,
 - (C) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Commercial Pilot Licence – Helicopter, and
 - (D) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by the holder of a Flight Instructor Rating - Helicopter, dated within 30 days prior to the re-test, certifying that the candidate:
 - (A) has received further training on the failed exercise(s),
 - (B) is considered to be competent to successfully complete the flight test, and
 - (C) the instructor recommends the candidate for the flight test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

- (a) a helicopter that:
 - (i) is certified for all manoeuvres required for the flight test, including full-on autorotations, and has no operating limitations which prohibit the performance of those manoeuvres,
 - (ii) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*, and
 - (iii) is equipped with suitable radio and two-way intercom voice communication;
- (b) appropriate current aeronautical charts and the current *Canada Flight Supplement*; and
- (c) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the helicopter from a position where the pilot-in-command functions can be performed and to carry out the test as if there is no other crew member;
- (b) take no part in the operation of the helicopter except:
 - (i) as required for the purpose of testing certain prescribed exercises,
 - (ii) to perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device, or
 - (iii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and
- (c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

- (a) The examiner shall evaluate the candidate's knowledge and skills to:
 - (i) perform the required exercises in accordance with the performance criteria prescribed for the Commercial Pilot Licence – Helicopter,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) demonstrate sound judgement and good airmanship,
 - (iv) correctly apply aeronautical knowledge, and

(v) demonstrate mastery of the helicopter at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.

(c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the helicopter used, the following general performance tolerances apply:

Altitude	Cross-country cruising flight	±200 feet
	Instrument flight	±150 feet
Heading	Instrument flight	±15°
Airspeed	Visual flight	±10 knots
	Instrument flight	±15 knots
Angle of Bank	Instrument flight	±10° of the specified angle of bank

5. Content of the Flight Test for the Issuance of a Commercial Pilot Licence - Helicopter

	Section 1 - Pre-Flight Operations
a	Helicopter Familiarization and Preparation for Flight
b	Ancillary Controls/Start-up/Run-up/Shutdown
c	Radio Communication

	Section 2 - Hovering
a	Take-off and Landing
b	Hover Exercises

	Section 3 - Airwork
a	Transitions
b	The Circuit
c	Instrument Flying

	Section 4 - Navigation
a	Pilot Navigation
b	Minimum Safe Altitude Operations

	Section 5 - Confined Areas
a	Reconnaissance
b	Approach/Departure
c	Manoeuvring

	Section 6 - Abnormal and Emergency Procedures
a	Autorotations
b	Engine Failure at the Hover and Hover-taxi
c	Simulated Emergency Procedures

SCHEDULE 7
FLIGHT TEST FOR THE ISSUANCE OF A
MULTI-ENGINE CLASS RATING -
AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test, the examiner shall receive the following documentation:

- (i) a Pilot Licence or Student Pilot Permit – Aeroplane, with a medical certificate,
- (ii) a letter signed by a qualified person who meets the requirements of subsection 425.21(5) of Standard 425 — *Flight Training*, dated within 30 days prior to the flight test, certifying that:

- (A) a pre-flight test evaluation was conducted with the candidate,
- (B) the candidate is considered to have reached a sufficient level of competency to undertake a flight test for the issuance of the Multi-Engine Class Rating, and
- (C) the candidate is recommended for the flight test.

(b) Before conducting a partial re-test following failure of a flight test, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by a qualified person who meets the requirements of subsection 425.21(5) of Standard 425 — *Flight Training* and dated within 30 days prior to the re-test, certifying that:

- (A) the candidate has received further training on the failed item(s),
- (B) the candidate is considered to be competent to successfully complete the flight test, and
- (C) the candidate is recommended for the re-test.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide an aeroplane that:

- (i) is certified for all manoeuvres required for the flight test,
- (ii) has no operating limitations which prohibit the performance of those manoeuvres, and
- (iii) meets the requirements of subsections 425.23(1) and (2) of Standard 425 — *Flight Training*.

(b) Certain manoeuvres required for the flight test may be conducted in a full-flight simulator or an appropriately equipped flight training device for which a certificate has been issued in accordance with section 606.03 *Synthetic Flight Training Equipment* of the *Canadian Aviation Regulations*.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the aeroplane from a position where the pilot-in-command functions can be performed and to carry out the test as if there was no other crew member;
- (b) take no part in the operation of the aeroplane except:
 - (i) as required for the purpose of testing certain prescribed exercises, or
 - (ii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic; and
- (c) stop the flight test when unsafe airmanship or dangerous flying is displayed by the candidate, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres.

4. Flight Test Performance

- (a) The examiner shall evaluate the candidate's knowledge and skills to:
 - (i) perform the required exercises in accordance with the performance criteria prescribed for the multi-engine class rating – aeroplane,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) demonstrate sound judgement and good airmanship,
 - (iv) correctly apply aeronautical knowledge, and
 - (v) demonstrate mastery of the aeroplane at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.
- (c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane used, the following general performance tolerances apply:

Altitude	Normal flight	± 100 feet
Heading	Normal flight	$\pm 10^\circ$
	One engine inoperative (simulated)	$\pm 20^\circ$
Airspeed	Take-off and approach	+10/-5 knots
	Manoeuvring	± 10 knots

5. Content of the Flight Test for the Issuance of a Multi-Engine Class Rating – Aeroplane

	Section 1 - Pre-Flight Operations
a	Aeroplane Familiarization and Preparation for Flight
b	Ancillary Controls
c	Taxiing

	Section 2 - Airwork
a	Take-off
b	Cruising Flight
c	Turns
d	Manoeuvring at Reduced Airspeed
e	Stalls

	Section 3 - Abnormal and Emergency Procedures
a	Engine Failures
b	Systems Failures

	Section 4 - Approach and Landing
a	The Circuit
b	Normal Approach and Landing
c	One Engine Inoperative Approach and Landing

SCHEDULE 8
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF AN INSTRUMENT RATING

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of an instrument rating, the examiner shall receive the following documentation:

- (i) a pilot licence or permit with a medical certificate,
- (ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, and
- (iii) a letter signed by a qualified person who meets the requirements of subsection 425.21(9) of Standard 425 — *Flight Training*, certifying that the candidate has the training and experience required and has reached a sufficient level of competence to undertake the Instrument Rating flight test.

(b) Before conducting a flight test for the renewal of an instrument rating, the examiner shall receive the following documentation:

- (i) a pilot licence or permit with a medical certificate, and
- (ii) proof that the candidate meets the requirements of section 421.49 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Before conducting a partial re-test following failure of a flight test for the issuance of an instrument rating, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) the documentation listed in subsection (1)(a).

(d) Before conducting a partial re-test following failure of a flight test for the renewal of an instrument rating, the examiner shall receive the following documentation:

- (i) a copy of the Flight Test Report for the previously failed flight test, and
- (ii) a letter signed by a qualified person who meets the requirements of subsection 425.21(9) of Standard 425 — *Flight Training* certifying that the candidate has undergone additional training and is considered competent to undertake the flight test.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

- (i) an aircraft that meets the requirements of subsections 425.23(1), (2) and (7) of Standard 425 — *Flight Training*, and
- (ii) current enroute, terminal and approach charts for the area where the flight test is to occur and a current *Canada Flight Supplement*.

(b) When the aircraft used is a helicopter, it does not need to be equipped with a stability augmentation system if the flight test is conducted in VMC conditions.

(c) If the examiner occupies the observer's seat, it shall:

- (i) be equipped with a safety harness installed in accordance with the *Airworthiness Standards*,
- (ii) be located to permit an unobstructed view of the aircraft instruments, radios and navigation equipment, and
- (iii) be equipped to monitor intercom and air to ground and air to air radio communications.

(d) The flight test may be conducted in a Level A or higher flight simulator or a synthetic flight training device approved for instrument rating flight test in accordance with TP 9685 - *Aeroplane and Rotorcraft Simulator Manual*.

(e) The candidate shall provide an effective means of excluding outside visual reference to simulate instrument flight conditions, while maintaining a safe level of visibility for the examiner or safety pilot.

3. Conduct of the Flight Test

(a) When conducting a flight test, the examiner shall:

- (i) require the candidate to fly the aircraft from a position where the pilot-in-command functions can be performed and, except where the aircraft operation has a two-crew requirement, carry out the test as if there is no other crew member,
- (ii) stop the flight test when unsafe airmanship or dangerous flying is displayed, including failure to use proper and effective visual scanning techniques to clear the area before and while performing visual manoeuvres,
- (iii) refrain from training or demonstrating proper technique during a flight test.

- (b) The examiner shall take no part in the operation of the aircraft except:
- (i) as required for the purpose of testing certain prescribed exercises,
 - (ii) to perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device unless another qualified safety pilot is performing the duties of a non-flying pilot in the case of an aircraft requiring two crew members, or
 - (iii) where intervention is necessary in the interest of safety or to avoid unacceptable delay to other traffic.
- (c) The examiner shall ensure that suitable air traffic services and facilities are sufficient to complete the flight test, including two different approaches.

4. Flight Test Performance

- (a) The examiner shall evaluate the candidate's knowledge and skills to:
- (i) perform the required exercises in accordance with the performance criteria prescribed for the Instrument Rating,
 - (ii) complete all manoeuvres with smoothness and accuracy,
 - (iii) demonstrate sound judgement and good airmanship,
 - (iv) correctly apply aeronautical knowledge, and
 - (v) demonstrate mastery of the aircraft at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (b) Consideration shall be given to unavoidable deviations from the published criteria due to weather, traffic or other situations beyond the reasonable control of the candidate.
- (c) Allowing for deviations due to turbulent conditions and the handling qualities and performance of the aeroplane or helicopter used, the following general performance tolerances apply:

Altitude	Normal flight	±100 feet
	Approach: minimum IFR altitudes associated with the intermediate and final segments (e.g.; FAF, beacon crossing or step-down fixes) Accurate altitude control required at MDA	+as required/-0 feet
Heading	Normal flight	±10°
Airspeed	Take-off and approach (aeroplane)	+10/-5 knots
	Take-off and approach (helicopter)	±10 knots
	Normal flight	±10 knots

Tracking	VOR/LOC/LOC BC/ILS/RNAV NDB	$\frac{1}{2}$ scale deflection $\pm 5^\circ$
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5. Content of the Flight Test for the Issuance or Renewal of an Instrument Rating

	Section 1 – Pre-Flight Operations
a	Flight planning
b	IFR Operational knowledge
c	Preparation for Flight
d	Air Traffic Control clearances

	Section 2 - Terminal and Enroute
a	Departure
b	Enroute
c	Arrival
d	Holding

	Section 3 - Approaches and Landing
a	Non-precision approach
b	Precision approach
c	Missed approach
d	Transition to Landing

	Section 4 - Abnormal and Emergency Procedures
a	Engine failure (multi-engine)
b	Systems Malfunctions
c	Emergency Procedures

SCHEDULE 9
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 4 - AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 4 - Aeroplane, the examiner shall receive the following documentation:

- (i) a Commercial or Airline Transport Pilot Licence in the same category as the rating sought,
- (ii) a pilot training record (PTR) showing that the required instructor training has been completed,
- (iii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, and
- (iv) a letter signed by the holder of a Flight Instructor Rating – Class 1 – Aeroplane and dated within 30 days prior to the flight test, certifying that the candidate:
 - (A) has received the required flight and ground instruction,
 - (B) is recommended for an instructor rating flight test, and
 - (C) is considered competent to undertake an instructor rating flight test.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating – Class 4 – Aeroplane, the examiner shall receive the following documentation:

- (i) a pilot licence or permit with a medical certificate, and
- (ii) proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Before conducting a complete re-test following failure of a flight test, the examiner shall receive a letter signed by the holder of a Flight Instructor Rating - Class 1 - Aeroplane, dated within 30 days prior to the re-test, certifying that the candidate has received additional training and is considered competent to undertake an instructor flight test.

Information Note:

A Pilot Training Record is not required for Canadian Forces Flight Instructors or, in those instances specified in Standard 421 — Flight Crew Permits, Licences and Ratings, for holders of a Flight Instructor Rating issued by a Contracting State.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

- (i) an aeroplane that meets the requirements of subsections 425.23 (1), (2), (3) and (4) of Standard 425 — *Flight Training* and which is, subject to paragraph (b), certified for intentional spins,
- (ii) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

(b) In the case of a renewal for a flight instructor rating, the examiner may not require that the aircraft be certified for intentional spins.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed; and
- (b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include frequent minor and even some major errors in the application of the learning factors and techniques of instruction, if the student would still be able to reach an acceptable level of understanding;
- (b) use teaching methods that obtain good student involvement;
- (c) present, with only minor errors, technical information to the student;
- (d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;
- (e) apply acceptable knowledge of training and testing standards; and
- (f) perform the required flight manoeuvres safely, allowing for frequent minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Aeroplane

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 10
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 3 - AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 3 - Aeroplane, the examiner shall receive the following documentation:

- (i) proof that the candidate has held a Flight Instructor Rating - Class 4 – Aeroplane within the previous 12 months,
- (ii) a Commercial or Airline Transport Pilot Licence in the same category as the rating sought,
- (iii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, and
- (iv) a letter signed by the holder of a Flight Instructor Rating – Class 1 – Aeroplane and dated within 30 days prior to the flight test, certifying that the candidate:
 - (A) has received the required flight and ground instruction,
 - (B) is recommended for an instructor rating flight test, and
 - (C) is considered competent to undertake an instructor rating flight test.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating – Class 3 - Aeroplane, the examiner shall receive the following documentation:

- (i) a pilot licence or permit with a medical certificate, and
- (ii) proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Before conducting a complete re-test following failure of a flight test, the examiner shall receive a letter signed by the holder of a Flight Instructor Rating - Class 1 - Aeroplane, dated within 30 days prior to the re-test, certifying that the candidate has received additional training and is considered competent to undertake an instructor flight test.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

- (i) an aeroplane that meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training* and which is, subject to paragraph (b), certified for intentional spins, and
- (ii) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

(b) In the case of a renewal for a flight instructor rating, the examiner may not require that the aircraft be certified for intentional spins.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

(a) require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed; and

(b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

(a) make a presentation that may include frequent minor and even some major errors in the application of the learning factors and techniques of instruction, if the student would still be able to reach an acceptable level of understanding;

(b) use teaching methods that obtain good student involvement;

(c) present, with only minor errors, technical information to the student;

(d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;

(e) apply acceptable knowledge of training and testing standards; and

(f) perform the required flight manoeuvres safely, allowing for frequent minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Aeroplane

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing
	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 11
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 2 - AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 2 - Aeroplane, the examiner shall receive the following documentation:

- (i) proof that the candidate has held a Flight Instructor Rating - Class 3 – Aeroplane, during the previous 12 months, and
- (ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating – Class 2 - Aeroplane, the examiner shall receive the proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) A candidate who is the subject of follow-up action with respect to his or her flight test record in accordance with section 421.67 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, is not eligible to upgrade the instructor rating from a Class 3 to a Class 2.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

- (i) an aeroplane that meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*, and which is, subject to paragraph (b), certified for intentional spins,
- (ii) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

(b) In the case of a renewal for a flight instructor rating, the examiner may not require that the aircraft be certified for intentional spins.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed; and
- (b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include very few minor errors in the application of the learning factors and techniques of instruction;
- (b) use teaching methods that obtain good student involvement;
- (c) present, with only minor errors, technical information to the student;
- (d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;
- (e) demonstrate knowledge of training and testing standards appropriate for supervising a staff of instructors; and
- (f) perform the required flight manoeuvres allowing for very few minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Aeroplane

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 12
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 1 - AEROPLANE

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 1 - Aeroplane, the examiner shall receive the following documentation:

(i) proof that the candidate has held a Flight Instructor Rating - Class 2 - Aeroplane during the previous 12 months, and

(ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating – Class 1 – Aeroplane, the examiner shall receive the proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) A candidate who is the subject of follow-up action with respect to his or her flight test record in accordance with section 421.67 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, is not eligible to upgrade the instructor rating from a Class 2 to a Class 1.

2. Aircraft and Equipment Required for the Flight Test

(a) The candidate shall provide:

(i) an aeroplane that meets the requirements of subsections 425.23 (1), (2), (3) and (4) of Standard 425 — *Flight Training* and which is, subject to paragraph (b), certified for intentional spins, and

(ii) an effective means of excluding outside visual reference to simulate instrument flight conditions while maintaining a safe level of visibility for the examiner.

(b) In the case of a renewal for a flight instructor rating, the examiner may not require that the aircraft be certified for intentional spins.

3. Conduct of the Flight Test

When conducting a flight test the examiner shall:

(a) require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed; and

(b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) apply the learning factors and utilize techniques of instruction in a manner that would set an example for a student instructor;
- (b) use a teaching method that obtains a high degree of student involvement;
- (c) present accurate technical information to the student;
- (d) demonstrate a very good understanding of training and testing standards;
- (e) identify errors in the performance of flight manoeuvres and suggest a variety of effective strategies for improvement;
- (f) perform flight manoeuvres in a predominantly ideal manner under the existing conditions; and
- (g) demonstrate the knowledge and skill necessary to train new instructors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor

Rating - Aeroplane

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 13
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 4 - HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 4 - Helicopter, the examiner shall receive the following documentation:

- (i) a Commercial or Airline Transport Pilot Licence in the same category as the rating sought,
- (ii) a pilot training record showing that the required instructor training has been completed, and
- (iii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating – Class 4 - Helicopter, the examiner shall receive the proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Before conducting a complete re-test following failure of a flight test, the examiner shall receive a letter signed by the holder of a Flight Instructor Rating - Class 1 - Helicopter, dated within 30 days prior to the re-test, certifying that the candidate has received additional training and is considered competent to undertake an instructor flight test.

Information Note:

A pilot training record is not required for Canadian Forces flight instructors or, in those instances specified in Standard 421 — Flight Crew Permits, Licences and Ratings, for holders of a flight instructor rating issued by a contracting state.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) a helicopter certified for all manoeuvres required for the flight test, including full-on autorotations, that:

- (i) has no operating limitations which prohibit the performance of those manoeuvres,
- (ii) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*, and
- (iii) is equipped with suitable radio and two-way intercom voice communication, and

(b) a suitable view-limiting device.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the helicopter from a position where flight instructor functions are normally performed; and
- (b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include frequent minor and even some major errors in the application of the learning factors and techniques of instruction, if the student would still be able to reach an acceptable level of understanding;
- (b) use teaching methods that obtain good student involvement;
- (c) present, with only minor errors, technical information to the student;
- (d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;
- (e) apply acceptable knowledge of training and testing standards; and
- (f) perform the required flight manoeuvres safely allowing for frequent minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Helicopter

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 14
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 3 - HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating - Class 3 – Helicopter, the examiner shall receive the following documentation:

- (i) proof that the candidate has held within the previous 12 months a Flight Instructor Rating - Class 4 – Helicopter,
- (ii) a Commercial or Airline Transport Pilot Licence in the same category as the rating sought, endorsed as stipulated in subparagraph (i), and
- (iii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test, in the case of Canadian Forces flight instructors or holders of a flight instructor rating issued by a contracting state, the examiner shall receive the following documentation:

- (i) proof of the required knowledge, and
- (ii) a letter of recommendation signed within the preceding 30 days by the holder of a Flight Instructor Rating - Class 1 – Helicopter, certifying that the candidate has received the required flight and ground instruction and is recommended for an instructor flight test.

(c) Before conducting a flight test for the renewal of a Flight Instructor Rating - Class 3 – Helicopter, the examiner shall receive proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(d) Before conducting a complete re-test following failure of a flight test, the examiner shall receive a letter signed by the holder of a Flight Instructor Rating - Class 1 - Helicopter, dated within 30 days prior to the re-test, certifying that the candidate has received additional training and is considered competent to undertake an instructor flight test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) a helicopter certified for all manoeuvres required for the flight test, including full-on autorotations, and that:

- (i) has no operating limitations which prohibit the performance of those manoeuvres,
- (ii) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*,

- (iii) is equipped with suitable radio and two-way intercom voice communication; and
 (b) a suitable view-limiting device.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the helicopter from a position where flight instructor functions are normally performed; and
 (b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include frequent minor and even some major errors in the application of the learning factors and techniques of instruction, provided that the student would still be deemed to reach an acceptable level of understanding;
 (b) use teaching methods that obtain good student involvement;
 (c) present, with only minor errors, technical information to the student;
 (d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;
 (e) apply acceptable knowledge of training and testing standards; and
 (f) perform the required flight manoeuvres safely, allowing for frequent minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Helicopter

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 15
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 2 - HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating - Class 2 - Helicopter, the examiner shall receive the following documentation:

(i) proof that the candidate has held a Flight Instructor Rating - Class 3 – Helicopter, during the previous 12 months, and

(ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating - Class 2 - Helicopter, the examiner shall receive proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) A candidate who is the subject of follow-up action with respect to his or her flight test record in accordance with section 421.67 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, is not eligible to upgrade the instructor rating from a Class 3 to a Class 2.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) a helicopter certified for all manoeuvres required for the flight test, including full-on autorotations, and that:

(i) has no operating limitations which prohibit the performance of those manoeuvres,

(ii) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*, and

(iii) is equipped with suitable radio and two-way intercom voice communication; and

(b) a suitable view-limiting device.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

(a) require the candidate to fly the helicopter from a position where flight instructor functions are normally performed; and

(b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include very few minor errors in the application of the learning factors and techniques of instruction;
- (b) use teaching methods that obtain good student involvement;
- (c) present, with only minor errors, technical information to the student;
- (d) identify errors in the performance of flight manoeuvres and suggest effective strategies for improvement;
- (e) demonstrate knowledge of training and testing standards appropriate for supervising a staff of instructors; and
- (f) perform the required flight manoeuvres allowing for very few minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Helicopter

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 16
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 1 - HELICOPTER

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating - Class 1 - Helicopter, the examiner shall receive the following documentation:

- (i) proof that the candidate has held a Flight Instructor Rating - Class 2 – Helicopter, during the previous 12 months, and
- (ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating - Class 1 - Helicopter, the examiner shall receive proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) A candidate who is the subject of follow-up action with respect to his or her flight test record in accordance with section 421.67 of Standard 421 — *Flight Crew Permits, Licences and Ratings*, is not eligible to upgrade the instructor rating from a Class 2 to a Class 1.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide:

(a) a helicopter certified for all manoeuvres required for the flight test, including full-on autorotations, and that:

- (i) has no operating limitations which prohibit the performance of those manoeuvres,
- (ii) meets the requirements of subsections 425.23(1), (2), (3) and (4) of Standard 425 — *Flight Training*, and
- (iii) is equipped with suitable radio and two-way intercom voice communication; and

(b) a suitable view-limiting device.

3. Conduct of the Flight Test

When conducting a flight test, the examiner shall:

- (a) require the candidate to fly the helicopter from a position where flight instructor functions are normally performed; and
- (b) perform the duties of a safety pilot while the candidate is donning and wearing a view-limiting device.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) apply the learning factors and utilize techniques of instruction in a manner that would set an example for a student instructor;
- (b) use a teaching method that obtains a high degree of student involvement;
- (c) present accurate technical information to the student;
- (d) demonstrate very good understanding of training and testing standards;
- (e) identify errors in the performance of flight manoeuvres and suggest a variety of effective strategies for improvement;
- (f) perform flight manoeuvres in a predominantly ideal manner under the existing conditions; and
- (g) demonstrate the knowledge and skill necessary to train new instructors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Helicopter

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 17
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 2 – AEROPLANE -
AEROBATIC

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating – Class 2 – Aeroplane – Aerobatic, the examiner shall receive the following documentation:

- (i) a Commercial or Airline Transport Pilot Licence in the same category as the rating sought,
- (ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*,
- (iii) a pilot log book showing details of the candidate's instructor training, and
- (iv) a letter of recommendation signed within the preceding 30 days by the holder of a Flight Instructor Rating - Class 1 - Aeroplane - Aerobatic, certifying that the candidate has received the required flight and ground instruction and is recommended for an instructor flight test.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating - Class 2 – Aeroplane - Aerobatic, the examiner shall receive proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Before conducting a complete re-test following failure of a flight test, the examiner shall receive a letter signed by the holder of a Flight Instructor Rating - Class 1 - Aeroplane - Aerobatic, dated within 30 days prior to the re-test, certifying that the candidate has received additional training and is considered competent to undertake an instructor flight test.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide an aeroplane that:

- (a) is certified in the Aerobatic Category in accordance with Chapter 523 of the *Airworthiness Manual*;
- (b) meets the requirements of section 425.23 of Standard 425 — *Flight Training*; and
- (c) is equipped with a two-way intercom voice communication system.

3. Conduct of the Flight Test

The examiner shall require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

- (a) make a presentation that may include frequent minor and even some major errors in the application of the learning factors and techniques of instruction, provided that the student would still be deemed to reach an acceptable level of understanding;
- (b) use teaching methods that obtain good student involvement;
- (c) present, with only minor errors, technical information to the student;
- (d) identify errors in the performance of flight manoeuvres and suggest some strategy for improvement;
- (e) apply acceptable knowledge of training and testing standards; and
- (f) perform the required flight manoeuvres safely allowing for frequent minor errors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Aeroplane - Aerobatic

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing

SCHEDULE 18
FLIGHT TEST FOR THE ISSUANCE OR
RENEWAL OF A FLIGHT INSTRUCTOR
RATING - CLASS 1 - AEROPLANE -
AEROBATIC

1. Prerequisites for the Flight Test

(a) Before conducting a flight test for the issuance of a Flight Instructor Rating - Class 1 – Aeroplane - Aerobatic, the examiner shall receive the following documentation:

(i) proof that the candidate has held a Flight Instructor Rating - Class 2 - Aeroplane – Aerobatic, or a Flight Instructor Rating - Class 1 – Aeroplane or Helicopter, during the previous 12 months, and

(ii) proof that the candidate meets the requirements of section 421.14 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(b) Before conducting a flight test for the renewal of a Flight Instructor Rating - Class 1 – Aeroplane - Aerobatic, the examiner shall receive proof that the candidate meets the requirements of section 421.66 of Standard 421 — *Flight Crew Permits, Licences and Ratings*.

(c) Renewals and upgrades of flight instructor ratings conducted up to 90 days before expiry shall be issued for a term extending from the original expiry date.

2. Aircraft and Equipment Required for the Flight Test

The candidate shall provide an aeroplane that:

(a) is certified in the Aerobatic Category in accordance with Chapter 523 of the *Airworthiness Manual*;

(b) meets the requirements of subsections 425.23(1) and (2) of Standard 425 — *Flight Training*; and

(c) is equipped with a two-way intercom voice communication system.

3. Conduct of the Flight Test

The examiner shall require the candidate to fly the aeroplane from a position where flight instructor functions are normally performed.

4. Flight Test Performance

The examiner shall evaluate the candidate's knowledge and skills to:

(a) apply the learning factors and utilize techniques of instruction in a manner that would set an example for a student instructor;

- (b) use a teaching method that obtains a high degree of student involvement;
- (c) present accurate technical information to the student;
- (d) demonstrate very good understanding of training and testing standards;
- (e) identify errors in the performance of flight manoeuvres and suggest a variety of effective strategies for improvement;
- (f) perform flight manoeuvres in a predominantly ideal manner under the existing conditions; and
- (g) demonstrate the knowledge and skill necessary to train new instructors.

5. Content of the Flight Test for the Issuance or Renewal of a Flight Instructor Rating - Aeroplane - Aerobatic

	Section 1 - Pre-Flight
a	Overall Planning and Organization of Lesson
b	Preparatory Ground Instruction
c	Pre-Flight Briefing

	Section 2 - In-Flight
a	Flight Proficiency
b	Teaching Proficiency
c	Analysis of Student Performance

	Section 3 - Post Flight
a	Post Flight Debriefing